THE CENTRALIZED DEVELOPMENT CENTER AND THE TARGET COMPUTER SYSTEM

HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON VETERANS' AFFAIRS HOUSE OF REPRESENTATIVES

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THE CENTRALIZED DEVELOPMENT CENTER AND THE TARGET COMPUTER SYSTEM

WEDNESDAY, OCTOBER 7, 1981

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON VETERANS' AFFAIRS,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
Washington, D.C.

The subcommittee met at 8:30 a.m., in room 334 of the Cannon House Office Building, Hon. G. V. (Sonny) Montgomery (chairman of the subcommittee) presiding.

Present: Representatives Montgomery, Stump, Hillis, Sawyer and Jeffries.

OPENING STATEMENT OF CHAIRMAN MONTGOMERY

Mr. MONTGOMERY. The Subcommittee on Oversight and Investigation will come to order.

I appreciate two of our members being here right on time, Mr. Sawyer of Michigan, and Mr. Stump of Arizona.

We're meeting today to review the Veterans' Administration computer programs, including the Target computer system contract between the VA and Honeywell and the system's implementation. In conjunction with the review of the Target system, the subcommittee has invited comments on overall data management improvements, particularly those improvement recommendations made by the General Accounting Office in its July 1980 report, entitled "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs."

We will also receive testimony on plans for the Centralized Development Center in Austin, Tex., place/loan guaranty programs, improvements in ADP for the VA medical program and a nationwide information system.

In his July 23 memorandum to the Assistant Administrator for Data Management and Telecommunications, Administrator Robert Nimmo concluded that the CDC concept, with its commitment to a highly centralized mode of development management, does not offer the flexibility and access to options that are foreseen to be necessary in dealing with the complex issues facing the VA in the future. Therefore, Mr. Nimmo canceled the implementation of the CDC and as a result, compensation, pension and education development programs will remain at the Hines, Ill., Data Processing Center.

Now there's been some controversy on that. At this time, the Chair recognizes Mr. Hillis of Indiana.

STATEMENT OF HON. ELWOOD H. HILLIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mr. HILLIS. Thank you, Mr. Chairman.

The hearing this morning enables us to focus on data management programs and problems at the Veterans' Administration.

The Target system at VA through which payments of compensation, pension, and educational allowances are made has involved the expenditure of several million dollars. I hope we will be informed this morning that it is working well and that the bugs in it have been eliminated.

I hear reports, Mr. Chairman, that the current Target system is already being utilized to a maximum degree and that if additional functions are to be added to it, that it needs immediate enhancements. I would hope that one of the witnesses would tell us if these reports are true and, if so, what are the costs of such enhancements; what are the chances of getting them and what are the consequences of not getting them.

Mr. Chairman, the committee has been told on a number of occasions that VA's computer medical programs lag far behind the "state of the art" and the private sector is far ahead of VA in the use of automation. I trust the witnesses this morning will touch on the subject and tell us what VA is doing to catch up.

Mr. Chairman, I understand the witnesses this morning will discuss and explain VA's decision to cancel its plan for the establishment of a Centralized Development Center for computer applications in Austin, Tex. I also understand that the witnesses will discuss other problems and situations in the broad field of automation. I look forward to their testimony.

Thank you, Mr. Chairman.

Mr. MONTGOMERY. Our first witness this morning on this subject will be Hon. Jake Pickle, who represents the 10th district of the great State of Texas.

We look forward to hearing from our distinguished colleague this morning, Mr. Pickle, and welcome to this subcommittee. We're very glad to have you here. You may proceed. Your full statement will be put into the record, without objection.[1] We'd like to welcome you to the committee.

STATEMENT OF HON. J. J. PICKLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. PICKLE. Thank you, Mr. Chairman and members of the committee. I appreciate the opportunity to appear before your group this morning.

I'm here to express deep concern that action being taken by the Veterans' Administration represents a complete reversal of previous policies which were shown to be in the best interests of our veterans and our country. Unfortunately, this decision came from the highest levels of the VA as a direct result of raw political intervention.

I regret, Mr. Chairman, that Mr. Nimmo, the Director of the VA, is not here this morning. I had understood and had assumed since this controversy was brought about by his decision, that he would

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[1] See p. 29.

be here to either explain or defend his decision. I understand that he is driving back from California, but at any rate, he is somewhere else.

I hope we'll have a chance to have a direct hearing with Mr. Nimmo at some later date and I respectfully will so request.

What I have to say this morning is directly to Mr. Nimmo. I am not in any way impugning the integrity of the staff of the Veterans' Administration, but the remarks are directly made to Mr. Nimmo, who saw fit not to be here this morning.

The present Administrator, Mr. Robert Nimmo, has arbitrarily, without study and without recommendation, given an order to disband the newly created and almost completed Centralized Development Center in Austin, Tex. The CDC concept was supported by the OMB, the GAO, the previous Administrator, the House Committee on Government Operations, and, I think, this committee.

In September 1980, the previous Administrator, Max Cleland, informed me of the VA's plans to establish the Centralized Development Center at the VA Data Processing Center in Austin. This decision had come as the result of a GAO report entitled, "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs." That was commissioned by the House Committee on Government Operations in October 1978 and issued on July 16, 1980.

Citing "cost overruns, schedule slippage and performance deterioration," the GAO report urged the VA to "establish a staff dedicated to performing discretionary software work such as development, redesign, enhancement and conversion." GAO noted several weaknesses in VA data processing, including fragmentation and duplication of resources, poor coordination and utilization of effort, and lack of standardized documentation and development methodology.

In response to these concerns, the VA staff designed the Centralized Development Center. An internal study by the VA found that the CDC afforded the VA the advantages of, and I'll list them because this is what the GAO report said would be established if you developed the Centralized Development Center:

One, it would create a pool of available resources for assignment by project priority without regard to specific ADP systems or organization;

Two, elimination of duplicate and fragmented development efforts and resources;

Three, greater flexibility and versatility among resources;

Four, an operational environment in which standardized systems documentation and development methodologies could be enforced; and

Five, the elimination of 57 full-time positions at the FTE.

Having made the decision to proceed with implementation, the VA Administrator, Max Cleland, authorized me to release the information in my district. He stated that the CDC concept would allow the VA to correct many problems in their ADP management and that Austin, because of its proven track record as a highly productive VA processing center, had been selected as the site for the CDC.

Now I want to emphasize, Mr. Chairman, that I did not solicit this center for Austin. I did not know that the study was going on. I was unaware that the CDC concept was under consideration by the VA. The CDC was not based on "pork barrelling" or politics, but based on facts, figures, and a compelling need recognized by two congressional committees, by the GAO and the VA itself.

When I heard their views, I was pleased, but before announcing it, I called the VA office in Washington directly to confirm the report and was told that the decision was definite and official. I was encouraged to and was authorized to issue a news release, which I did.

The CDC became a reality in January of this year—180 people in the Austin Data Processing Center received lateral transfers. Some 30 people were transferred to Austin from outside the State. Total staffing for the new CDC was targeted at 387.

On March 18, 1980, the Office of Management and Budget endorsed the CDC concept and based its fiscal year 1982 budget projections for VA's ADP on implementation of the project. Implicit in the OMB's budget projections were the savings gained by the elimination of the 57 FTE positions.

Aware of my concerns, OMB Director David Stockman noted on July 21, 1981, and I quote Mr. Stockman:

"The plan for the center was developed within the agency on the basis of improved management efficiency and the anticipated recurring net savings which would be realized. OMB concurred in the proposal during the review of the agency's fiscal 1982 budget."

On August 25, 1981, Mr. Stockman wrote to me again and he wrote to me then about Mr. Nimmo's intent, saying, "It is our understanding that this delay is intended to be of short duration and is in no way to be considered a precursor of a reversal of prior policy."

That's what Mr. Stockman thought.

Shortly after the CDC became a reality, however, some of my colleagues from Illinois began to express their opposition because a number of their constituents were slated for transfer to Austin. The reaction was natural and understandable. But the VA had earlier found that the Hines facility had high employee turnover as well as a generally negative employment and performance history.

These facts, combined with the GAO report and with the VA's own internal study, provided assurance of followthrough on the CDC proposal despite almost certain political protest. But the VA operated for 6 months without a permanent Administrator. Mr. Rufus Wilson was then the Acting Administrator. I presume he felt that he should not make a decision because the new administration was in power and he was waiting for somebody to take over. He wouldn't make any decision, perhaps understandably so.

At any rate, for 6 months there was no permanent Administrator. Meanwhile, the political infighting, both internal and external, raged.

On March the 19, 1981, my colleagues from Illinois requested a second GAO report. And here comes the brave GAO now back into action. [Laughter.]

According to the GAO, "as agreed with the offices of Senator Percy and Dixon and Congressman Hyde, we limited"—now I want

you all to look at the copy on that—"we limited our review to examining, one, the adequacy of VA's estimates of cost and benefits of establishing the CDC at a single location and, two, the basis of projected personnel savings."

Keep that in mind, gentlemen, because the GAO's parameters were so narrow and so limited, that they could justify a report later based on this very narrow approach.

The GAO pointedly notes, "We did not prepare an independent cost-benefit analysis of the CDC, nor did we assess the reliability of the data in the VA's productivity systems." Because of the parameters established by my Illinois colleagues, neither did the GAO "make detailed analyses of the intangible factors associated with establishing the CDC." They were looking only at those 57 slots, no more, no less. At least I have to conclude that.

The GAO concluded their report, somewhat ambivalently, pointing out that the VA's examination of the 57 FTE personnel's savings was neither complete, nor comprehensive enough to support a statement of whether establishing the CDC would be cost-beneficial.

And then they add, "Because of the Administrator's decision, and since the proposals have not been implemented," they said, "we are making no recommendations at this time."

Now, let's look across the hallway.

Earlier, on July 9, 1981, during confirmation hearings before the Senate Committee on Veterans Affairs, VA Administrator Robert Nimmo said that no study of the cost effectiveness of the CDC clearly supported moving the activity from Hines to Austin, and that the move would not be made until such a study was completed. What he said at the hearings was we're going to get a full study.

But in an internal memo dated July the 23—now that's less than 2 weeks later—the Administrator stated that he had, in fact, decided not to transfer the Hines DPC Target system to Austin. This decision was made despite GAO's reports and internal findings to the contrary and without benefit of the cost-effectiveness study which only 2 weeks before Mr. Nimmo had felt was so necessary.

I was shocked when I heard this news and I felt that surely, there had been some misunderstanding or miscommunication. So I called Mr. Nimmo and I learned from him that plans to proceed with the CDC had, in fact, been canceled at his order. He assured me, however, that the Austin DPC would remain intact and that neither systems nor personnel would be transferred out of Austin.

I took him at his word, although I was very unhappy and told him so.

I have now been advised, Mr. Chairman, that several of the medical debt collection and construction systems will, in fact, be moved from Austin. The order for that change was issued last week. Now, until such time as the VA can prove that these actions benefit the veterans and the Government and do not result in adverse action against the Austin staff, I will remain publicly and privately opposed to them. I ask, Mr. Chairman, where are the management analyses and cost-benefit studies that support these moves, the latest moves by the VA? He wants to say that he couldn't prove the savings on the CDC concept, but without any

kind of final report or study, he just reverses himself and he says he concluded that therefore, the other would be a saving, without studies, without any direct recommendation.

So it seems to me that you have to ask: Did Mr. Nimmo order the transfer of these ancillary systems? If he did order the transfer of these ancillary systems, then he's gone back on his word to me.

In addition to requesting assistance from Chairman Montgomery of this committee, I have also solicited the aid of Congressman Jack Brooks, chairman of the Government Operations Committee, which first commissioned the GAO study of the Veterans' Administration's ADP resources. Chairman Brooks has requested that the Administrator immediately stop any action to abolish the CDC until his committee has the opportunity to review all documentation supporting this change.

In spite of the chairman's letter and request to this effect, Mr. Nimmo has "thumbed his nose" at Mr. Brooks—and that is not normally a healthy thing to do in Washington.

Mr. Chairman, I respectfully request that this committee halt the cancellation of the CDC. We should not sit idly by while the veterans and the Government suffer from the ill-advised and politically inspired actions of newly appointed bureaucrats.

The personnel in Austin are upset about the recent turn of events. I visited there last week and talked to many of them individually. Not only do they fear for their jobs, but many of them were transferred in or were hired at the CDC because they welcomed the challenge offered by this new concept. A number of these employees have bought homes, moved their families and set up a new life in a new community. They do not want to move again. If they stay and just laterally move across to the regular VA data processing branch, they will lose the possibility of promotion and the challenge of advancing the CDC concepts.

If they move over laterally and stay on the job, as they said they would do, and you keep the same people up in these other areas where the system had previously been operating, it seems to me like you're going to have a duplication of employees. You're going to cost money; you're not going to save money if you keep your word and don't fire these people. But it is costly as well as embarrassing the way this matter has been handled.

Well, Mr. Chairman, I respectfully request that this committee direct the VA Administrator, Mr. Robert Nimmo, to continue the CDC concept in good faith and allow the productive energies of this quality staff to prove their worth. I believe this would be a far sounded course of action than for the Administrator to make a seat-of-the-pants decision to abolish this new center. At the very least, I would ask that this committee direct the Administrator to undertake a comprehensive study of the Veterans' Administration data processing needs. Such a study should specifically include examination of all estimated costs and benefits associated with the CDC, tangible and untangible.

I'm convinced, Mr. Chairman, that any objective, professional and comprehensive study would justify the complete implementation of the Austin CDC concept. Parochial political interests should take a back seat to the best long-range interests of our Nation's veterans.

In closing, I would like to also say that I object to the way the retirement of Mr. William Martin was handled. I don't know whether Mr. Martin is here, but I would want to point out to you that Mr. Martin was the Director of the VA data processing division and was directly involved in the VA's decision to establish the CDC. Bill Martin spent 35 years in the VA and twice received the highest VA award an Administrator could give, and twice the second-highest award.

Mr. Martin, who spent his life contributing to the service of the VA, was unceremoniously asked to retire from the agency. He was called in on Wednesday and told that he should resign and left on Friday. Now that's rather short consideration of a man who had given 35 years of loyal service to the VA. As head of the data processing area, he had suddenly lost out to the political infighting, which included, among other things, the plug-pulling on the Austin CDC. Mr. Martin was given 2 days' notice to clear out his desk. He was a career civil servant. His job was nonpolitical.

I ask this committee, in light of the adverse publicity of hiring and firing in what The Washington Post called a soap opera, to investigate the treatment of career VA officials.

I want to repeat again, Mr. Chairman, that I did not solicit the CDC for Austin. It was not something created by pressure or politics. The VA had made that recommendation on their own from months of study. The VA and the GAO studies revealed the benefits and improvements for all veterans. A nonpolitical decision has now been reversed by crass and crude political action. I'm afraid the real victims will be the American people and the veteran.

Now Mr. Chairman, I have distributed to you, I assume, a copy of the chronology of key documents relating to this Austin VA Centralized Development Center.[1]

Do you have copies of those?

Mr. MONTGOMERY. Yes, we have copies.

Mr. PICKLE. Would you please distribute copies of this chronology? The chronology I've outlined here are an accurate chronology of the various events that took place in respect to this decision. These are just facts. It just shows you step-by-step what happened.

I don't want to take the committee's time here, but if you read all of these items, you will note how this all came about.

I think, Mr. Chairman, I might just take—can I proceed for another 5 minutes, Mr. Chairman? How many witnesses do you have here?

Mr. MONTGOMERY. We have a number of witnesses, Jake. We would like to get to the Veterans' Administration and let them answer some of these serious charges that you presented before the committee today.

Mr. PICKLE. Well, let me ask, then, Mr. Chairman, that I might reserve the balance of my time.

Mr. MONTGOMERY. Without objection, after members of the committee have asked questions, if there's no objections, the Chair would permit the gentleman 5 minutes of questions of the witnesses.

Mr. PICKLE. I'll respect the committee's wishes, then, Mr. Chairman. As I said at the beginning, I entertained the thought yester-

[1] See p. 31.

day of withholding my testimony until such time as Mr. Nimmo will be here. He's the fellow that I want to talk to and hear answers from and not Mr. Sharkey or Mrs. Somebody. [Laughter.]

But at the committee's suggestion, I agreed to go ahead and make my testimony known. You'll notice, then, if you look at this chronology, that the Government Operations Committee started off and said that we ought to have a study. The VA made the study. And after several months of this study, they then made the report. And everything went in order, in place. Some 30, 40 people moved in. The CDC was made final—until after the general election. And then you have some inquiries from some of my colleagues, and very natural inquiries. I don't fault them because they're just trying to save a job.

In the process, though, the new Administrator completely reversed a policy, and I say he did it on the basis of skulduggery. That's the best word for it.

Now the world's not going to stop or fall apart because of this controversy. Some will say, as one of my colleagues said, "Lyndon Johnson is not alive any more and these things happen." I know you can toss it off as a sunbelt, frostbelt controversy.

The fact is, Mr. Chairman, a decision was made. All of the agencies of the Government said it was a good decision. The VA committee said it was a good decision. This committee said it was a good decision. And yet, one man has come in now at pressure and reversed the decision.

That ought not to be allowed. The cold hand of politics has entered into the Veterans' Administration's operations. That ought not to be. And so whatever comes of this—I'm not trying to be personal about it—I just say that it's the wrong approach and it ought to be looked into further.

I thank you, Mr. Chairman.

Mr. MONTGOMERY. Thank you, Jake, for that very strong testimony. We'll allow the Members of Congress to ask questions according to the way they came in when the meeting started. Mr. Sawyer?

Mr. SAWYER. I'm kind of afraid to ask Jake questions. [Laughter.]

Mr. MONTGOMERY. Well, you're one of the best lawyers on this committee. You ought to be able to handle Mr. Pickle.

Mr. SAWYER. I have no questions.

Mr. MONTGOMERY. No questions? Mr. Stump?

Mr. STUMP. Mr. Chairman, I have no questions. I'd just like to thank the gentleman for his very candid testimony and I look forward to hearing from Mr. Nimmo.

Mr. PICKLE. I will be, too, Mr. Chairman. [Laughter.]

Mr. MONTGOMERY. Well, we'll try to get Mr. Nimmo here. We tried before. The tradition has been that usually the Administrator only comes before this committee maybe once a year. I have no problem if we could get him up here, but we'll just have to wait and see.

Mr. Hillis?

Mr. HILLIS. I have no questions, Mr. Chairman.

Mr. MONTGOMERY. You've got them kind of shook up. [Laughter.]

Mr. Jeffries?

Mr. JEFFRIES. No questions.

Mr. PICKLE. Mr. Chairman, I didn't have that in mind. I know how these things develop. As I've said, I've seen the elephant and heard the owl. But it's not right. This committee ought to look into it. I would think that this committee could give the leadership to verify these charges. And if I'm wrong, then I ought to have to eat crow. But if I'm right and it does save money and it is the right approach, then this committee ought to give serious consideration to stopping it.

Mr. MONTGOMERY. Let me make a few comments here. On page 6, where you suggested that this committee should direct the Administrator to undertake a comprehensive study of the Veterans' Administration data processing needs, certainly we will ask and direct the Administrator to do this. And as far as this committee taking action on your recommendation that we stop at this time the action of the Administrator, what I would prefer is to send some capable people to both of these locations and come back with a report to this investigating subcommittee and then talking this matter through with the subcommittee. But we will, in effect, take a good hard look at it now.

Mr. PICKLE. Well, Mr. Chairman, one of the first comments made by the GAO was that we ought to look at this reorganization of the computer ADP program and development center, not in any parochial sense, but we ought to think in terms, will it make a savings and will it provide efficiency?

Now that was the avowed purpose and intent when the VA set out on this originally. Mr. Nimmo told me after he decided not to go ahead with the CDC because he couldn't prove the savings, that he wouldn't transfer the system unless he could "prove it."

Now already, four systems are being moved out. So what the VA is doing, Mr. Chairman, is going back to the old system they had a year or two ago, which the VA set out avowedly to change. So they've got the same old system that they had.

Now maybe it's the best. But the studies showed that it wasn't.

So the VA hasn't saved money; they've gone back and reestablished the same thing that they had 2 years ago. Somehow, it seems to me like it's self-defeating.

Well, I thank you, Mr. Chairman.

Mr. MONTGOMERY. Thank you, Mr. Pickle, and we would like to invite you to sit with the committee up here. We'd like very much to have you.

Mr. PICKLE. Thank you.

Mr. MONTGOMERY. Our next witness is Mrs. Elizabeth Burkhart, who is the Associate Deputy Administrator for Information Management, Veterans' Administration.

You may introduce the people with you, Mrs. Burkhart. And I believe you've been on the job now for several months. Is that correct?

Mrs. BURKHART. I have been at the VA since June.

Mr. MONTGOMERY. You might sit down and we could hear you, Mrs. Burkhart.

STATEMENT OF ELIZABETH FLORES BURKHART, ASSOCIATE DEPUTY ADMINISTRATOR FOR INFORMATION MANAGEMENT, THE VETERANS' ADMINISTRATION, ACCOMPANIED BY JACK SHARKEY, ASSISTANT ADMINISTRATOR FOR DATA MANAGEMENT AND TELECOMMUNICATIONS; DANNY L. BALL, VETERANS' ADMINISTRATION DATA PROCESSING CENTER, HINES, ILL.; AND LEONARD J. MALAMUD, OFFICE OF THE GENERAL COUNSEL, VETERANS' ADMINISTRATION

Mrs. BURKHART. Mr. Chairman, members of the subcommittee. The Administrator, as you know, could not be here today. I am Elizabeth Flores Burkhart and I am Associate Deputy Administrator for Information Management, which means the data processing area is under my oversight responsibilities.

I have with me Mr. Sharkey, who is Assistant Deputy Administrator for Data Processing, Mr. Ball from the Hines facility, and Mr. Malamud from the General Counsel's Office.

While details concerning ADP operations are best handled by our experts in this area, I shall be happy to answer questions that you may have on policy matters.

We appreciate this opportunity to discuss the status of our automated data processing efforts at the Veterans' Administration. You have in previous hearings addressed primarily the issue of the Target system and its performance. I have with me today Mr. Jack Sharkey, the Assistant Deputy Administrator for Data Management and Telecommunications and Mr. Danny Ball, Director of the Data Processing Center at Hines, as I said.

They will be answering the questions you have addressed in your letter requesting this hearing. On the general subject of ADP management, I can assure you that the matter has been of great interest and concern to the Administrator. He feels that the future of the VA depends in large measure on how successful we are in utilizing our ADP activities to fulfill our program missions.

We are examining our data processing strategy and I believe that through a concerted management effort at all levels of the agency, we can meet the ADP needs of the VA and its commitment to reduce general operating costs.

Basically, we are developing a strategy based on the establishment of centers of expertise at the various data processing centers; that is, we are concentrating the technical and user personnel located at those stations where there is particular knowledge and experience in ADP specialties such as the Insurance System processing at Philadelphia, veterans' benefits and medical systems processing at Hines, Illinois, and processing of finance systems at Austin. This will provide an increased measure of flexibility and responsiveness in our program activities.

With this brief introduction to our current ADP plans and activities, I shall refer you to Mr. Sharkey for a more detailed response to the items on which you have requested information. He will also describe the various accomplishments which have been achieved over the last year in a number of ADP-related areas and discuss a number of new initiatives which are currently planned.

Mr. MONTGOMERY. Mr. Sharkey, without objection, your full statement will be put in the record.[1] We have these meetings early so that we can get a good attendance of members and we do have a good attendance this morning.

If you would have no objection, we would like for you to summarize. It would help us. And before you make your comments, I'd like to have Dr. Donald Custis, who is Chief Medical Director of the Veterans' Administration, stand up. He's got one of the most responsible jobs in the Veterans' Administration. We're very glad to have you at this hearing this morning, Dr. Custis.

OK, Mr. Sharkey.

Mr. SHARKEY. Mr. Chairman, members of the committee, I'd like to join Mrs. Burkhart in thanking you for the opportunity to appear before you today. This is my first appearance here as the Assistant Deputy Administrator for Data Management and Telecommunications, and I am pleased to have the opportunity to address both the issues in which you expressed interest in your request to us for this hearing and to relate to you some of our current ongoing automation activities.

In conjunction with my remarks, I would also like to address the approach we plan to follow in pursuing our ADP goals. In light of our budget constraints and the need to find ways to increase productivity throughout the agency, I believe that automation is one of the most important means by which we can trim costs without disrupting the level of service we now provide to the Nation's veterans.

The first issue you requested we address is the Target system implementation and the Target contract between the VA and Honeywell. The Target system, as you well know, is the largest on-line system in the world today. It has over 3,000 online terminals. It has over 25,000 pieces of equipment or features at an estimated life-cycle cost of $176 million, with benefits over $250 million.

We accomplished our phase I in October of 1979. Phase II, where we brought all of the regional offices completely up to where they are today, was accomplished in September of 1980. The system for fiscal year 1981 had an up-time average of 97.6 percent, which I feel is a very admirable up-time.

In March of 1980, we put a stand-alone central processing unit in at Hines Data Processing Center for development testing and installation of our applications software in as near an error-free situation as possible today.

In July of 1980, we also put our beneficiary identification and records locator system, which is located at Austin, Tex., on an IBM 370/168. Prior to that time, we were having a somewhat slower response time throughout our regional data processing centers on the Target network because of the slowness of the prior computer in Austin. With the 168, we were able to increase the response time at the regional offices because of the fact that this one machine was much faster.

We have a couple of contract agreements with Honeywell, both of which involved software. In one, we both basically had claims against each other. Honeywell provided software that really was not in the contract. We felt that some of the delays were due to the

[1] See p. 33.

software that was in the contract which we hadn't planned for. It was a mutual understanding that it was in the best interest of both parties to sort of write that one off, in very plain English.

There was another contract that dealt with the fact that the software was slowing the system down. Therefore, we felt that we had a claim against Honeywell because we were not able to use the system in accordance with the contract. A claim for approximately $600,000 is being made against Honeywell and these moneys will be collected in the very near future.

Additionally, we have a very sophisticated automated system to handle the inventory management control of those 25,000 pieces of equipment and features. Honeywell's is one of the strictest contracts in Government today regarding down-time credits, et cetera. We have now billed Honeywell approximately $123,000 for the nonperformance and response time deficits because of the equipment.

We recognize that there are augmentations needed in the system. Today, we not only have put in that which we said we were going to in the studies, but we put in a very large system called Chapter 32. This is causing the system to have a little bit slower response time in heavy periods than we would like to see.

There is an opportunity within the contract for us to augment the equipment and we are making plans to augment this equipment with two additional central processing units, most likely at Hines Data Processing Center, so that we can use four dual central processing units rather than three to handle our regional office workload.

Another area of concern is the present status of implementation of recommendations in the GAO report entitled, "VA Must Strengthen Management of ADP Resources To Serve Veterans' Needs." I believe it is important to note that both prior to and during the GAO's study, the VA was conducting a thorough examination and long-term corrective program in the automation area. The effort culminated in the realinement of resources and responsibilities within the agency. A 5-year plan was initiated containing both short-term objectives, a 2-year view, and long-term objectives 5 years outward. The plan contains not only what systems planned but what the telecommunications and equipment requirements are to fulfill that plan.

We have established a Computer Resource Management Division within O.D.M. & T. to assess all of those equipment needs and to replace some of the outmoded hardware that we have within the system.

A development methodology for new systems development was installed called SDM 70. This is a discipline applied to a system in development that takes it all the way from conception to operation, cradle to grave. It contains approximately 17 different phases whereby the user—I'm talking about the people whom we serve—sign off at certain selected key points along the way. In addition, depending upon the cost of a system, the Administrator may approve the continuation of that particular system. Therefore, at key points we are looking at that system from the standpoint of whether it is still cost beneficial, if it still meets the needs of the agency and if the original concept is still valid today.

Also during this period of time we have been looking at ways to more effectively utilize our resources. We have installed a standard definition of terms to distinguish what we call maintenance, new enhancements, and new systems. We are installing these definitions throughout the organization so that no matter where this work is being done, we will be able to determine whether we are maintaining the present system just to keep it running, or enhancing it, or whether we are developing a new system. In this way we can break out the resources. I believe that this is one of the criticisms that GAO had—that we had to be able to identify those resources that we were putting into those different areas of the system's development.

Also at that time we were looking at how to best organize those particular resources. We will talk later about the need to consolidate those resources.

We also established an ADP review group. At the present time, the Administrator is the chairman of that particular group. It is the final determining body of what we will do in automation within the VA.

One of the most recent actions of that committee was to set priorities for the ADP initiatives that we are going to accomplish in fiscal year 1982.

There is also a systems acquisition group that was established within the Office of Planning and Program Evaluation. This particular group of people has the function of overseeing those very large systems that we were developing to assure that we were following all of the guidelines that were laid down.

We also put together or pulled together all of the agency's policies which set forth the roles and responsibilities of the users and O.D.M. & T. as regards automation.

Our ongoing concern for achieving the most effective and efficient management structure for our ADP development efforts has caused us to closely evaluate and assess the centralized development center and possible modifications to the concept as originally envisioned.

In September 1980 the concept was approved by the then—

Mr. MONTGOMERY. Mr. Sharkey, I hate to interrupt you, but some members are going to have to leave. Can we get into some questions? Would that be all right?

Mr. SHARKEY. Yes, sir.

Mr. MONTGOMERY. I'd like to ask the first question. Based upon Congressman Pickle's testimony, there seems to be a lot of internal disagreement within the VA regarding the CDC. Could you tell us why you're having these problems and what caused the changing of so many minds on the viability of the CDC?

Mr. SHARKEY. That was just my next statement, if I may go on, I'll go right into trying to answer that.

Mr. MONTGOMERY. No; just answer my question, if you would.

Mr. SHARKEY. All right, sir. In September 1980, the then Administrator, Mr. Cleland, approved the concept of the centralized development center. The centralized development center concept consisted of five phases. The third phase, which was implemented as of January 1980, was to establish a prototype in Austin, Tex. This

prototype merely separated the development people from the operations people at the data processing center.

The objective of this particular phase was to determine the interfacings between the development people and the operations people. It was to determine the relationships between the development center, the data processing center, and the headquarters function.

There were two other phases—the movement of all development activities and the movement of all maintenance activities. Those were the last two phases and those were to be fully studied.

In my view, at that point in time when the Administrator signed the document, he was approving the prototype establishment through phase III. As you well know, there were a number of studies, including GAO, who gave a briefing to the Administrator on July 7. In addition to the internal studies made by O.D.M. & T., there were internal studies made by the IG and also the Office of Programming, Planning and Evaluation. There was significant differences of opinion as to the cost benefits of it and whether we should continue with that mode of a totally centralized operation of all of our functions.

There was also, I believe, a recognition that automation is there to support only one need, and that's the need of the users so that they can more effectively support that veteran out there.

Through the rapid decisionmaking process that took place as to whether we were going to move maintenance and development down there, there was no decision by the Administrator to do that at that time. These were basically O.D.M. & T. decisions based on some studies, and there was internally a request, "Hey, let's look at these particular studies to see if they're cost effective or not."

I believe that cost effectiveness is very important, but it's also very important to recognize that users must feel that automation is there to service their needs.

As we looked at the scenario, the fact is that at that point in time there was a question as to whether it was cost effective. The Administrator, on July 23, recognizing the fact that there are changing missions within the organization, announced the concept of the centralization of expertise wherein our systems development people, our operational people, and functional people would be located at close proximity to assure that we're getting the best bang for the buck, as far as we're concerned. Austin basically will be the financial area. Hines, where we have the center of our target network, will be for supporting the Department of Veterans' Benefits, C.P. & E.

Dr. Custis and his medical organization have a very large operation at Hines, where they support the pharmacy, which we'll talk about later. We have an increased responsibility in debt collection, wherein all of our functional people are at St. Paul. In order to most effectively support that requirement, the VA is due over a million bucks, we felt that having all the people consolidated there was important. The same way with insurance, which is the fifth largest insurance company in the world. All the functional people are in Philadelphia. It only makes sense to have the people supporting them, the automation people, there to closely meet their needs.

I think it's important to note that all of the operational workload that was transferred to Austin, and we did transfer a lot of operational workload, none of that operational workload will be transferred out of Austin. We feel that there are 36 people net over what we had when we first started the CDC concept at Austin, Tex.

With the workload that we moved down there, including new workloads, we have to redesign our total payment personnel system as one thing. We feel very strongly that the workload that was transferred down there, and the new workload that is coming down on us in fiscal year 1982 will gainfully employ all of those people.

I will admit that we were doing some preplanning to accept other workloads down there, to do the pharmacy maintenance, to do the conversion from our DEC to data general machines and our debt collection. There was preplanning going on. However, no assignment officially was ever made to do those functions at the centralized development center, even though the director was doing preplanning actions. I don't think that he can be criticized for doing some preplanning.

Those people that were hired, as I say, are all gainfully employed. Not only are there plus 36 in Austin, Tex., but under the full centralized accounting for local management systems, we are putting 202 more people into the finance division at Austin, Tex., by April 1984 to accomplish this centralized accounting for the financial area.

I guess what I am saying is that we analyzed the concept to establish a prototype and we had the opportunity to review that prototype under the CDC environment. I think it's important to note that the studies that were accomplished were questionable as to whether it was cost beneficial. The most important requirement is to satisfy the needs of the users.

Based upon all these considerations and the findings of the GAO, which never did suggest that we have one single development area, there was concern that we were able to more effectively utilize our system's development resources.

The Administrator on the July 23 made the decision to cancel further implementation of the CDC.

Mr. MONTGOMERY. Thank you, very much.

Mr. Hillis?

Mr. HILLIS. Thank you, Mr. Chairman. Mr. Sharkey, I have a number of questions, but in the interest of time, I'm going to submit them to you and ask you to give answers for the record so that we'll have a complete record of this hearing this morning.[1]

There are one or two things that I would like your comments on at this time. First of all, am I accurate in summarizing what you've just told us that you're making a resurvey of the organization of different functions of the Veterans' Administration and how they might be best fitted into a computerized system and become more efficient, particularly in matters of cost and service by this, more or less, reorganization or redepartmentalizing the functions of the VA?

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[1] See p. 42.

Mr. SHARKEY. Yes; we're looking at it, and I think the decisions have been rendered to associate ADP resources with the functional areas that they support.

Mr. HILLIS. Now as a member of this subcommittee and of the Veterans' Committee, I have followed for some time the target system and the efforts to place data processing throughout our Veterans' Administration. I have the general feeling that in the past, we were lagging behind the private sector.

Now I sat in on hearings of this committee last year on the target system and I know about that system. It's unique and it's very good when it works. But that, generally speaking, we were coming late into data processing. I'm speaking of we in the sense of the Veterans' Administration.

Will this permit an updating or more utilization of the latest parts of that science, what you're describing here this morning?

Mr. SHARKEY. Yes; there's no question about it. I believe my main responsibility is to work very closely with the users to more effectively use the technology, and we are working very diligently to bring new hardware and technologies into the VA.

Mr. HILLIS. Well, as I understand, the lag primarily probably is in the medical field.

Mr. SHARKEY. Yes, sir; yes, sir.

Mr. HILLIS. And that probably doesn't affect the sense of this hearing on the centralized development system. But still, as I understand, you're telling this committee that it is the judgment of the Administrator and the people around him that by leaving this service at Hines, the whole administration will be better served than to go ahead with the development that the previous administration undertook; is that correct?

Mr. SHARKEY. Yes.

Mr. HILLIS. Thank you. I think that's all the questions I have.

Mr. MONTGOMERY. Before I recognize Mr. Stump, are you decreasing the size of the CDC at Austin, Tex., or are you increasing it—the center there?

Mr. SHARKEY. No, sir, the total number of people at what will be a combined Austin Data Processing Center is now 36 more than when we split it apart to develop and test the prototype. In addition to those plus 36 which will stay there—we have no thoughts of moving them. We are adding another 202 people by April of 1984 to support our finance mission. So it's a net gain of 238 by 1984. There's enough workload down there for all those people who moved to stay.

Mr. MONTGOMERY. By 1984. Mr. Stump?

Mr. STUMP. I have no questions.

Mr. MONTGOMERY. Mr. Jeffries?

Mr. JEFFRIES. There's only one question I might ask. On this whole thing, are you going to, over the whole operation, save people or are you going to be adding more?

Mr. SHARKEY. You're talking about the cancellation of the CDC?

Mr. JEFFRIES. [Nods in the affirmative.]

Mr. SHARKEY. No; we actually were able to, through the budgetary process, to give up 57 positions when we started into this prototyping. So we are actually going into the fiscal year 1982 with

57 fewer resources because of that. However, I don't consider that to be any problem.

Mr. JEFFRIES. The thing I'm trying to determine, there are so many things sitting out here. I just want to get it in my own head, as clear as you can make it for me, of all of these changes that you made throughout the United States, at Hines, at Austin, everywhere else, are you going to be adding more people or not?

Mr. SHARKEY. Well, there will be some people added for new initiatives in fiscal year 1982.

Mr. JEFFRIES. Do you have any idea of how many? How many people are we talking about adding?

Mr. SHARKEY. We're talking about for the new initiatives, about 135 people for the things that we have to do in 1982.

Mr. JEFFRIES. Are the 135 going to go to Austin?

Mr. SHARKEY. No, sir, they are not, depending upon where the new initiatives will be taking place. We know that we need more people—we're in the process right now of the first phase for redoing our insurance system. As you know——

Mr. JEFFRIES. What we're saying is that we are going to be adding more people to this process.

Mr. SHARKEY. Yes, sir, whether we have the CDC or not. These are new initiatives which would require new people.

Mr. HILLIS. Would the gentleman yield?

It's my understanding, Mr. Sharkey, that somewhere in the original analysis of moving the CDC down to Austin, it was estimated that there would be a savings of 57 positions and $1,300,000 in payroll or costs. Now what happens to that now with this new look? Are you going to end up with a net savings of that much or is the budget going to go up over $1 million?

Mr. SHARKEY. No; actually, in the 1982 budget, we lost those 57 positions, and that's where all these cost-justification, cost-benefit problems came up. As a matter of fact, we, internally, reduced what we felt was going to be the number of savings. Other organizations looked at the savings, including GAO, and it did not appear as though the savings were going to be there that initially was claimed.

However, in the budgetary process, we had put those 57 savings in the budgetary process and OMB naturally just took those 57 positions.

Mr. HILLIS. Thank you for yielding.

Mr. MONTGOMERY. Thank you. Those were good questions, Mr. Jeffries. The Chair recognizes the gentleman from Texas, Mr. Pickle.

Mr. PICKLE. I thank you, Mr. Chairman. First, I must say, Mrs. Burkhart, I made a reference earlier to the VA representative as Mrs. Somebody.

Mrs. BURKHART. I was tempted to say I'm Mrs. Somebody. [Laughter.]

Mr. PICKLE. I did not know that you were going to testify and I have not met you and I'm glad that you have come.

Now, I want to ask Mr. Sharkey—when this decision was made to establish the CDC in Austin, were you at the Veterans' Administration?

Mr. SHARKEY. Yes; I was. I had just arrived.

Mr. PICKLE. I understand that all the departments were canvassed as to their approval about this and all the departments of the VA agreed that this CDC concept was feasible and should be established; is that correct?

Mr. SHARKEY. I think you have to understand that there are five phases to the initiation of the centralized development center; yes.

Mr. PICKLE. Everybody agreed to it?

Mr. SHARKEY. I would agree that everybody understood——

Mr. PICKLE. You said just a minute ago that there was considerable dissension on whether this would work.

Mr. SHARKEY. Subsequent——

Mr. PICKLE. Where was the dissension? By whom?

Mr. SHARKEY. By our major users.

Mr. PICKLE. Who?

Mr. SHARKEY. Well, within the area of the Department of Veterans' Benefits, the Department of Medicine and Surgery. These people, I believe, are here in the audience. You may ask them, if you like. Their fears and concerns were that the automation support was not going to satisfy their needs.

Mr. PICKLE. You're saying, then, that any questions about it were raised from the field after the decision was made.

Mr. SHARKEY. Yes.

Mr. PICKLE. That's very natural to understand, somebody from St. Paul, somebody from Philadelphia.

Mr. SHARKEY. No; I'm talking about the Central Office. I'm not talking about the field.

Mr. PICKLE. I want to make it very plain that the VA, every department of the Veterans' Administration got in on this, even the C.P. & E.

Mr. SHARKEY. That is true, sir. Everybody agreed that we should put up a prototype. The prototype merely separated the Austin Data Processing Center. The prototype did not involve moving anybody from any other part of the United States.

Mr. PICKLE. Now, Mr. Sharkey, on your testimony here on page 6, you make the point that studies were initiated to accomplish this effort. "The Austin station was established as a prototype to test the Centralized Development Center concept."

Now these terms were never mentioned in connection with the establishement of the CDC. When you say that it was established to test it, I say that's a conflict. You show me the specific wording which says that we didn't want to try this out. Here is a statement from Mr. Raymond Blunt, the PPE chairman, a division head. He says:

> We concur in the study's a basic recommendation to consolidate the VA's fragmented development operation into a cohesive organization at a single location * * *. We believe that the establishment of a centralized operation, such as proposed in the study, offers an excellent opportunity to improve effectiveness and efficiency of its ADP resources.

Now this does not say that it ought to be a prototype or a test. That's your word. That's your assumption.

Mr. SHARKEY. No, sir, it is not. That is what the Administrator——

Mr. PICKLE. I don't want to take advantage of you, but you show me a letter where it says this would be a "test." If you want to do that later, you may do that.

I want to point out to you that in the GAO report, dated July 16, 1980, the GAO now clearly called for the consolidation of the computer development resources to accomplish four or five main things which I mentioned earlier. This was recommended by the GAO. It was recommended by the VA, totally. It was recommended by the OMB.

Now, when you say that there was considerable dissension, I think that you meant about some decision later, regarding the 57 FTE, when somebody said, we're going to lose 6 or 8, or 10 people.

Mr. SHARKEY. No, sir. No, sir.

Mr. PICKLE. I'm making that statement to you.

Mr. SHARKEY. I don't agree.

Mr. PICKLE. All right.

Mr. SHARKEY. I believe there are points within the GAO report that do not go along with what you just said.

Mr. PICKLE. All right, and I want you to show them to me, the flat statement that this is supposed to be just as a test. You don't make a decision to consolidate——

Mr. SHARKEY. Mr. Pickle, I happened to be in Philadelphia the day that the Administrator signed the letter authorizing the CDC concept. He called me and he said, "Jack, what are we going to do?" And I laid before him the five phases, exactly. And here is the study which he signed off on and I said:

"It consists of five phases. What you're doing is transferring the current force of DPC systems, development, and maintenance, breaking it apart and establishing a prototype. It probably will take us 1 year before we are able to fully comprehend the magnitude."

I want to say that I was part of putting the Air Force Development System together at Gunter Air Force Base and also for the Defense Supply Agency, and I recognize you don't go into a consolidation of resources and do it overnight. We felt that by utilizing the Austin systems and the operational environment it would give us the testing time that we needed to determine whether we should, in fact, move systems from other operational areas in the United States to most effectively support the veteran.

Mr. PICKLE. Well, Mr. Sharkey, when the VA Administrator called you and said, Jack, what do you think, did you tell him that you were for or against this move?

Mr. SHARKEY. I was for the establishment of the prototype because I was part of it for the Air Force and the Defense Supply Agency.

Mr. PICKLE. So you were for it. Well, I would think if you had all these grave reservations, you would have objected to it.

Mr. SHARKEY. I didn't have grave reservations at that time. We were establishing a prototype to determine whether that should be the future of the VA.

Mr. PICKLE. Now, you also said stated there, "A thorough review of the decision to proceed with the remaining phases of implementing the center and the concept was then conducted." You're saying that you had a big study on it and that it was conducted to determine what to do. Has there been a study on that? Has there been an official document? Have you notified this committee about this study and how you recommended the changes should be made? Has there been a study?

Mr. SHARKEY. Well, there's a series of studies that were done.

Mr. PICKLE. What kind of series? Internal.

Mr. SHARKEY. Cost-benefits studies, the GAO report. I think the GAO report has done a cost study. That's one of the things that the Administrator used in basing his decision.

Mr. PICKLE. Are you talking about the first report or the second GAO report that was limited in scope?

Mr. SHARKEY. No, it was not limited.

Mr. PICKLE. Well, let me go on in this thing. Just for the record, I want to point out Bill Martin recommended this to Mr. Cleland and that he agreed to it in his memorandum on September 9, 1980. It doesn't show that it's going to be a temporary thing at all.

Now you say there's been a study and we ought to maybe change this thing. On July 21, 1981, the Administrator issued a directive to cancel the CDC. So I ask you again, had the VA conducted any studies or cost-benefit analyses to support the dismantling of the CDC?

Mr. SHARKEY. I would allow that we really haven't dismantled the CDC. We have made a decision not to further continue with the CDC concept, sir.

Mr. PICKLE. That's like those fellows who catch a catfish in the Mississippi. You're not going to hurt it, but you're going to cut off its head. You haven't dismantled it. [Laughter.]

Mr. SHARKEY. We're not hurting anybody.

Mr. PICKLE. You have hurt it. You've also issued notice that you're going to transfer several systems out of Austin.

Mr. SHARKEY. Sir, you were not listening, I believe, to what I said originally. All of the workload that was transferred to Austin, the operational workload is staying at Austin. We are not moving any of that workload out of there.

Mr. PICKLE. Somebody at the office got a notice 10 days ago, 2 weeks ago, that these systems were going to be moved.

Mr. SHARKEY. These were systems for which there was preplanning accomplished, all right? I think that's part of any good management structure, that you do preplanning for a workload that's coming down the pike. However, the agency had not made a determination as to where the pharmacy maintenance should be done, nor where the development of the admissions discharge transfer and Clinlab system and the conversion of the DEC to Data General computers and our debt collection. Those have not been decided, sir.

Mr. PICKLE. I want to go back to my question about the studies. You say there were some studies about dismantling or canceling or whatever word you used. If you have made studies, can we have copies of these studies? Can the committee have copies of these studies that you've made that justify the cancellation?

Mr. SHARKEY. There are studies, as I say, that I believe the committee——

Mr. PICKLE. Well, where are the studies?

Mr. SHARKEY. They probably have it. We will provide those for the record, sir.[1]

Mr. PICKLE. On the one hand, the Administrator says that, well, according to the GAO report, we can't prove on a direct basis that

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[1] See p. 50.

these 57 positions would be saved or would result in a savings. But on the other hand, we can turn right around and go back and continue the same system without any kind of study, a system that both the GAO and the VA said originally was costly and fragmented. It seems to me that you're being inconsistent.

Now I recognize that all of the operations workload will remain in Austin. But you transferred 36 people down there.

Mr. SHARKEY. Yes, sir.

Mr. PICKLE. From all over the agency.

Mr. SHARKEY. For which they will be gainfully employed.

Mr. PICKLE. They were GS–10's, GS–11's, GS–12's, in that category.

Mr. SHARKEY. All grades, yes, sir.

Mr. PICKLE. Now, did you move that many people down there just as a "test?" Do you think that the VA administration is just going to "test" that to see if it works?

Mr. SHARKEY. Yes, sir.

Mr. PICKLE. I think you would ask us to be gullible to swallow that kind of thing. But if that's your opinion, you're entitled to it. I'm not going to challenge you if you're sincere about it.

I asked you a question. You said that there were going to be 200 people in Austin transferring in or being kept there. That's separate and apart from the CDC, primarily. They were already scheduled to be moved in. They're not tied to the CDC.

You made the inference that Austin is not going to be hurt. You do have these 36 here and I presume you won't just give them walking papers like you did Mr. Martin, but they'll be moved back over somewhere else or you'll say, you can go back to Hines or you can go back to St. Paul or wherever you want to.

But they can come in. They bought their homes. They were told this wasn't a test. This is the chance to come down. Do you think that these people would move to Austin and go out and buy a home on the basis that this was kind of a "test?"

Mr. SHARKEY. It was never our intent in performing the test that if the test results would prove negative, those people would be out of jobs.

Mr. PICKLE. Well, the 200 that you're sending in are people who are at the GS–3 or GS–4 level, that area primarily, not the 10 or 11, not the management level that was sent there to set up the system.

So you're trying to hoodwink us, Mr. Sharkey, by saying, oh, we're going to send all these people in, when they were already scheduled to go into the financial operation, not the CDC. You're sending a level of one type and not the other.

Mr. SHARKEY. There still is a net increase of 36 people of those calibers and grades that you're talking about, who are going to be gainfully employed and will have every opportunity to be promoted through the system.

Mr. PICKLE. Well, I'm just saying to the committee, and you give those figures so glibly, that was already set in motion to be accomplished and wasn't directly connected with the CDC. In fact, it ought to be understood in the context in which you stated it.

In July 1981, when the Administrator passed the decision to cancel the CDC operation in Austin, he stated that all the major

applications presently in Austin, Tex., would remain there. Now does the VA now plan to transfer major medical applications from Austin to Hines?

Mr. SHARKEY. Again, as I stated earlier, Mr. Pickle, that workload was not officially assigned to Austin. There was preplanning being accomplished for that workload. However, an agency decision had not been rendered as to where that workload should go.

Mr. PICKLE. Actually, Mr. Sharkey, when I asked you that, this VA plan to transfer the medical to Austin, the answer is yes, isn't it?

Mr. SHARKEY. Transfer from Austin? No, sir. It was never assigned to Austin. The original assignment has just recently been made.

Mr. PICKLE. If I'm not mistaken, I was notified that the pharmacy section was going to be moved from Austin back to Hines.

Mr. SHARKEY. No, sir.

Mr. PICKLE. And so notified that the pharmacy people were alerted. They were going to be moved out, those people.

Mr. SHARKEY. No, sir. Upon the receipt of the decision by the Administrator that we were canceling the further implementation of the CDC concept, I personally called the Director of the Data Processing Center and the Director of the Centralized Development Center. I asked them immediately to get all of the supervisors together, in turn to get every employee together to assure them that there would be no movement of personnel on an involuntary basis, that we were not eliminating anybody's position. And I was assured by my directors that this request had been carried out fully and that every employee down there should not have any fear for his or her job because they would be gainfully employed working on the current workload that we have down there. In fact, we'll probably have to put more down there some day.

Mr. PICKLE. Mr. Sharkey, the people in Austin have a different concept. I think the people in your agency, the Veterans' Administration, take a different position from you when you say that you don't intend to.

Let me just point out that I have a letter here signed by Mr. Donald Custis, who the chairman introduced earlier this morning. Mr. Custis made a specific recommendation. "I strongly recommend certain changes in the Austin Development Center." Mr. Custis goes on to say, "I recommended all pharmacy, maintenance and development activity be housed at the Medical Computer Center at Hines." He goes on.

Mr. SHARKEY. Yes, sir.

Mr. PICKLE. Now you tell me, though, that it was not recommended. Here's Mr. Custis making that recommendation and the word has already gone out that they're going to be moving. Now who am I to believe?

Mr. SHARKEY. As I say, that was a system for which a decision had not been rendered at that point in time, all right? Again, I'll go back. There was preplanning being accomplished at the CDC to pick up that workload, but they never were officially given that mission to do.

Dr. Custis requested that the people to do the systems design and development be associated closely with the operational area, which already was established in building 37 at Hines.

Mr. PICKLE. What you're saying is your view. Why, then, did Dr. Custis ask to be changed? What he represented is simply opposite from what you have led this committee to believe is going to happen.

Now why did he recommend that change?

The letter I have here, the memo I have here—Mr. Chairman, I'm not going to go over—this is a memorandum from Bill Martin to the Chief Medical Director on August 18, 1981. He says:

> Your recommendation to centralize the application and maintenance functions for pharmacy and development activities from Austin to Hines would impact the responsibilities of more than 30 employees presently supporting these functions at Austin. This would represent a radical change in our present plan.

So it seems to me——

Mr. SHARKEY. Sir, you are quoting from Mr. Martin's letter to the Administrator—I mean to Dr. Custis.

Mr. PICKLE. That's correct. Mr. Custis had recommended that. Now, Mr. Chairman, we're going into detail and it looks to me like it may appear we're chasing rabbits to find a certain position.

The fact of the matter is the VA had all agreed to this consolidation. No one disagreed, including the man who says he has grave concern about it. The only person down there who ever raised a quesion about it was Mr. Blunt, who was head of the PPE. But he endorsed it.

Mr. SHARKEY. Sir, that was only after the prototype was established. Everybody, including myself, was for it.

Mr. PICKLE. On two occasions Mr. Blunt endorsed this in writing. I'll show you.

Mr. SHARKEY. That's true.

Mr. PICKLE. And only once did he, and he was the only person down there, only once did he just obliquely refer to the question of FTE savings.

Mr. Blunt, to be blunt, has recanted. He has recanted twice. We have a different piece of scenery here. And nobody else did.

Mr. SHARKEY. But this was part of the whole procedure, sir.

Mr. PICKLE. If this was a matter of considerable doubt, and you're simply not relating the facts to this committee accurately and I think the committee probably understood it that way.

Mr. Chairman, I thank you. I would like to ask more questions, but——

Mr. MONTGOMERY. The next witness will be from the GAO and you can work on him. [Laughter.]

Mr. Sharkey, for your first testimony, you hung in there fairly well. Mrs. Burkhart, you were smart: You didn't say much. [Laughter.]

Are you from Texas?

Mrs. BURKHART. Yes; I am.

Mr. MONTGOMERY. That's, I guess, one reason that Mr. Pickle didn't. [Laughter.]

Thank you very much and we'd like to call Mr. Zimmerman to the witness stand, Associate Director of the Human Resources

Division of the General Accounting Office. I'd also like to ask the gentleman from Arizona, Mr. Stump, to take the chair at this time.

STATEMENT OF MICHAEL ZIMMERMAN, ASSOCIATE DIRECTOR, HUMAN RESOURCES DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY GEORGE PECK, GROUP DIRECTOR; AND JAMES WILLIAMS, SENIOR ANALYST

Mr. STUMP [presiding]. Mr. Zimmerman, and gentlemen, welcome to the committee this morning. Your testimony will be part of the permanent record and if you would care to summarize, we would appreciate it very much because we are going to be going into session in a few minutes and we could very well have a rollcall.

Mr. ZIMMERMAN. Thank you. Mr. Chairman, I would like to begin by introducing the members of my staff that are here with me today. To my right is Mr. Jim Williams. Mr. Williams was responsible for the work involving the CDC. To my left is Mr. George Peck. Mr. Peck is responsible for the GAO work at VA.

We are pleased to be here today to discuss our report on the VA's efforts to establish a Centralized Development Center (CDC) in Austin, Tex.

The CDC was to centralize most computer program development and maintenance resources previously assigned to VA's five data processing centers. This would involve transferring development and maintenance work and associated staff from the DPC's and VA's central office to the CDC. VA estimated in August 1980, that benefits would exceed costs by $2.5 million over 5 years of the CDC operation. These savings were based on eliminating DPC personnel positions expected to accrue from implementing the CDC.

Our review was performed in response to a congressional request and, as requested, our work was limited to examining the adequacy of VA's estimate of the costs and benefits associated with consolidating resources at a single location and the basis for projected personnel savings.

On the basis of our work, we concluded that VA's examination of the estimated costs and benefits of the CDC were neither complete, nor comprehensive enough to support a statement that establishing the CDC would be cost beneficial.

In July 1980, we reported that VA needed to improve the management of its ADP resources and recommended that a separate staff of analysts and programers be established to do discretionary work such as systems development and design and assign skeleton crews for system maintenance.

Our recommendation was directed at improving the management of VA's computer programming resources. To allow the agency discretion and flexibility in choosing the best method of achieving the desired objective, we did not propose a specific organization structure such as a centralized development staff at a single location or establishing pools at the DPC's.

In an August 1980 report, VA's Office of Data Management and Telecommunications (O.D.M. & T.) presented the results of its investigation into the feasibility of the CDC concept and recommended establishing the center in Austin. This recommendation proposed transferring systems development and maintenance work

along with the associated personnel of each of VA's five data processing centers to the proposed CDC in Austin.

The August report contained a 5-year estimate of the probable costs and benefits associated with establishing the CDC. These estimates show net benefits consisting of the elimination of 57 personnel positions at the DPC's by the end of fiscal year 1982, exceeding costs in the second year of CDC operations.

In January 1981, O.D.M. & T. initiated the transfer of about 180 employees from the Austin DPC to the CDC as the first step in implementation. At the end of April, 11 more staff had been transferred to Austin from other DPC's in the central office. By the end of June, about 233 of the 392 authorized CDC positions had been filled and most development and maintenance systems have been transferred to the CDC except for the target system at Hines. The scheduled completion of the CDC implementation was to be by the end of fiscal year 1981.

However, as a result of internal disagreements, VA delayed transferring the Target system to the CDC. From the time the Administrator resigned in February 1981, until a new Administrator was confirmed in July, the VA had two Acting Administrators who, on three occasions, addressed the actions needed to complete the CDC implementation and the Target system transfer. On each occasion, the transfer decision was deferred. Although several issues were raised involving the risks associated with the transfer, such as the potential disruption of Target system development work and the possible failure to retain knowledgeable staff at Hines needed to maintain operational systems, the primary concern has been whether the transfer was cost beneficial.

As previously mentioned, the O.D.M. & T. August 1980 report presented probable costs and benefits associated with establishing the CDC in Austin. The net benefits were based on personnel savings achieved by eliminating 57 positions at the DPC's.

Although the report identified the methodology used to develop the personnel savings, it was incomplete because many of the estimated costs were presented without providing the basis or methodology used. For example, $300,000 in severance pay was included without an estimate of the number of personnel whose employment with the Government would be terminated.

In addition, estimates were not provided for costs associated with training new hires to replace VA employees choosing not to transfer to the CDC.

Using an O.D.M. & T. March 1981 study of updated and more detailed estimates of the cost to relocate the Target system work from Hines to the CDC, VA's Office of Planning and Program Evaluation (O.P. & P.E.), in its April 10 memorandum, provided three cost-benefit ratios computed over 5 years of CDC operations, all of which indicated that moving the Target system and staff from Hines to the CDC was not cost-beneficial.

Using the same March study, O.D.M & T., in an April 20 memorandum, presented an analysis of the Target system transfer that showed a savings over 5 years of CDC operations.

In an attempt to get a comprehensive picture of the CDC costs and benefits, we compared VA's estimated costs for computer program development and maintenance work under the present decen-

tralized approach with the proposed CDC approach. Using O.D.M. & T.'s and O.P. & P.E.'s methodology as applied in their analyses of the Target system transfer, we identified 63 separate dollar estimates, of which 22, or about one-third, were either missing or incomplete.

An example of an incomplete estimate was the 4-year cost for additional space required at the CDC to house the transferred people. The estimates varied from O. D. M. & T.'s $300,000 to O. P. & P.E.'s $680,000. The low estimate was based on 135 square feet per employee, while the high estimate was based on 180 square feet per employee. Both of these estimates are incomplete or inaccurate.

After adjusting for needed storage, conference, training and parking space and unnecessary additional space for a computer, the estimated CDC-related space costs over 4 years would be about $429,000. However, this estimate was based on the previously mentioned March 1981 study, which was limited to on-duty staff at Hines. Using the April 8 staffing estimates, the cost for additional CDC space for new hires and staff transferring from all DPC's and the Central Office is about $913,000.

Other examples of incomplete and missing estimates are discussed in our report. The number of missing and incomplete estimates precludes an accurate statement of the costs and benefits associated with establishment of the CDC in Austin.

Another problem we had was with the methodology used to develop savings. The personnel savings associated with the CDC were based on eliminating 57 positions by the end of fiscal year 1982 at the DPC's. This was revised in April to the elimination of 48 positions by the end of the fiscal year. These personnel savings were based on an estimate that programer productivity would increase from a general agency estimate of 64 percent to a goal of 74.5 percent as a result of implementing the CDC.

Using actual program time reported at the Austin ADP center, the 64 percent general estimate was based on using actual program time reported at the Austin DPC. Actual time from Hines, Philadelphia, St. Paul, and Los Angeles was not included in this estimate because comparable data was not available from these sites.

The use of the Austin-based 64 percent productivity rate as an agency estimate is inappropriate because it is not representative of programing productivity at the other DPC's. Employing this estimate to develop programer-related savings at the Hines, Philadelphia, and St. Paul DPC's is statistically invalid.

In addition, the methodology presented in the O.D.M. & T. August 1980 report was misleading because it did not describe the actual procedures used to estimate the savings in personnel positions. Further, the application of the methodology, as used to develop the August 1980 estimates and more than half of the savings in the April 8, 1981 revised estimates, could not be verified because O.D.M. & T. was not able to provide the number of programer positions used in its computations or a position-by-position analysis documenting nonprogrammer position savings.

On July 9, 1981, during confirmation hearings before the Senate Committee on Veterans' Affairs, the Administrator said apparently

no study of the cost effectiveness of the CDC issue clearly supports moving the Target activity from Hines to Austin.

As you know, Mr. Chairman, the Administrator in July decided not to transfer the Target system staff to the CDC and that the CDC implementation program was canceled.

Mr. Chairman, this concludes my statement. Your letter of September 4, 1981 also requested that we provide testimony on a number of ADP areas that we have previously been involved with. However, we have not been able to perform the required followup work necessary to update our prior work in these areas and, therefore, we have little to contribute at this time. However, we will try to respond to any questions that you may have on the CDC and these areas.

[The prepared statement of Mr. Zimmerman appears on p. 56.]

Mr. STUMP. Thank you, Mr. Zimmerman. We all remember the problem that the VA had with Target. In your opinion, have these been resolved?

Mr. ZIMMERMAN. Let me refer that question to Mr. Williams, please.

Mr. STUMP. Mr. Williams?

Mr. WILLIAMS. Yes; I think they have been resolved. The prior problems with the Target system were primarily centered around the availability of the system. During calendar year 1979 and a portion of 1980, there was a common complaint from the users that when the system was up, it was great. But the problem was that it did not seem to be up enough.

Overall Target system availability now is running at about 98 percent of availability. That certainly is very good. I think that it can be said that the VA has solved that problem.

Mr. STUMP. There was some concern about Honeywell's responsibility for the Target problems. Has anything been done about this?

Mr. ZIMMERMAN. Again, I'd like to refer that question to Mr. Williams?

Mr. WILLIAMS. Yes; I think Mr. Sharkey actually answered this question earlier. There have been to date claims against Honeywell in the amount of $134,000. Honeywell has credited about $123,000 to the VA. Currently, there is negotiation between the VA and Honeywell on the settlement of performance guaranteed under the contract covering claims in the amount of $636,000. That has not been settled yet.

Mr. STUMP. Thank you. Mr. Zimmerman, we do have a couple more questions that we will submit to you, if you would care to answer for the record. And I believe that Mr. Pickle would like to ask a couple questions of you in writing for the record, if you please.[1]

Mr. ZIMMERMAN. I will be more than glad to respond to them.

Mr. STUMP. Thank you sir. Our next witness is Mr. Donaldson, vice president of Federal systems operation, Honeywell Information Systems.

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[1] See p. 60.

STATEMENT OF ROBERT DONALDSON, VICE PRESIDENT, FEDERAL SYSTEMS OPERATION, HONEYWELL INFORMATION SYSTEMS

Mr. STUMP. Mr. Donaldson, your statement will be made a part of the record and if you care to summarize, we would appreciate it.[1]

Mr. DONALDSON. Given the hour of the day, I will try for extreme brevity. I would simply say that throughout the prior hearings we told the committee precisely what we were going to do. We did that. The system operates very well today. There was a question asked earlier as to whether Target was state of the art? I feel there's no doubt about that. And that's the end of my statement, sir. I'll answer any questions that you might have.

Mr. STUMP. Thank you, Mr. Donaldson. I'm the only one left here. I guess I have no questions to ask. Does the staff have any questions?

[No response.]

Thank you, Mr. Donaldson, for your statement.

Mr. DONALDSON. You're welcome.

Mr. STUMP. At this point I'd like to announce that the hearing record will be kept open for 5 days for those parties that are interested.

Mr. Pickle, we have heard from the gentleman. I stated that you would have some questions in writing, if that's all right with you.

Mr. PICKLE. Mr. Chairman, I was under the impression a few minutes ago that we had a vote. Instead, it was a caucus. I missed my chance to listen to the GAO. I would like to ask questions, if I might. Do we have a vote on?

Mr. STUMP. We have a vote on now, Mr. Pickle.

Mr. PICKLE. I wonder if I might—I guess, Mr. Chairman, in view of the fact that I haven't heard his testimony—are you going to submit questions in writing? Are you going to continue this hearing?

Mr. STUMP. No; this concludes the hearing at this point, Mr. Pickle, but I did state that you had some questions and that they would be submitted and answered for the record.

Mr. PICKLE. Mr. Chairman, would you just indulge me?

Mr. STUMP. Certainly. Do you have any questions of Mr. Donaldson from Honeywell?

Mr. PICKLE. Let me ask you this. I think there's time allowed.

[Pause.]

This man is from Honeywell. I do not have any questions.

Mr. STUMP. Thank you, Mr. Donaldson.

Mr. PICKLE. I misunderstood. The GAO has testified. Well, I'll have to submit questions for the GAO. I missed my chance on that, so I'm sorry. But I will submit questions.

Mr. STUMP. Thank you. The meeting stands adjourned.

[Whereupon, at 10:05 a.m., the hearing was adjourned.]

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[1] See p. 62.

APPENDIX

Prepared Statement of Hon. J. J. Pickle, a Representative in Congress From the State of Texas

Mr. Chairman, let me thank you and the Committee for this opportunity to participate in this hearing. I am here to express deep concern that actions being taken by the Veterans Administration represent a complete reversal of previous policies which were shown to be in the best interests of our veterans and our country. Unfortunately, this decision came from the highest levels of the VA as a direct result of raw political intervention.

The present VA Administrator, Mr. Robert Nimmo, has arbitrarily, without study, and without recommendation, given an order to disband the newly-created and almost completed Centralized Development Center (CDC) in Austin, Texas. The CDC concept was supported by the OMB, GAO, the previous VA Administrator, the House Committee on Government Operations, and I think, this Committee.

In September of 1980, the previous VA Administrator, Max Cleland, informed me of the VA's plans to establish the Centralized Development Center at the VA Data Processing Center in Austin. This decision had come as a result of a GAO report entitled "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs," commissioned by the House Committee on Government Operations in October of 1978, and issued on July 16, 1980. Citing "cost overruns, schedule slippages and performance deterioration," the GAO report urged the VA to "establish a staff dedicated to performing discretionary software work such as development, redesign, enhancement and conversion." GAO noted several weaknesses in VA data processing including fragmentation and duplication of resources; poor coordination and utilization of effort, and lack of standardized documentation and development methodology.

In response to these concerns the VA staff designed the Centralized Development Center. An internal study found that the CDC afforded the VA the advantages of: a pool of available resources for assignment by project priority without regard to specific ADP systems or organizations, elimination of duplicate and fragmented development efforts and resources, greater flexibility and versatility among resources, an operational environment in which standardized systems documentation and development methodologies could be enforced, and elimination of 57 full-time positions.

Having made the decision to proceed with implementation, VA Adminstrator Max Cleland authorized me to release the information in my District. He stated that the CDC concept would allow the VA to correct many problems in their ADP management and that Austin, because of its proven track record as a highly productive VA data processing center, had been selected as the site for the CDC.

I want to emphasize, Mr. Chairman, that I did not solicit this center for Austin. I was unaware that the CDC concept was under consideration by the VA. The CDC was not based on "porkbarrelling," but on facts, figures, and a compelling need recognized by two Congressional Committees, the GAO, and the VA itself.

Before announcing this decision I called the VA office in Washington directly to confirm the report and was told that the decision was definite and official. I was encouraged to, and was authorized to, issue a news release.

The CDC became a reality in January of this year. 180 people in the Austin Data Processing Center received lateral transfers. Some people were transferred to Austin from outside the state. Total staffing for the new CDC was targeted at 387.

On March 18, 1980, the Office of Management and Budget endorsed the CDC concept and based its fiscal year 1982 budget projections for VA's ADP on implementation of the project. Implicit in OMB's budget projections were the savings gained by the elimination of 57 FTE positions.

Aware of my concerns, OMB Director David Stockman noted on July 21, 1981, "the plan for the center was developed within the agency on the basis of improved management efficiency (emphasis mine) and the anticipated recurring net savings

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which would be realized (again my emphasis). OMB concurred in the proposal during the review of the agency's fiscal year 1982 Budget."

On August 25, 1981, Mr. Stockman wrote to me of Mr. Nimmo's intent, saying, "It is our understanding that this delay is intended to be of short duration and is in no way to be considered a precurser of a reversal of prior policy."

Shortly after the CDC became a reality, however, some of my colleagues from Illinois began to express their opposition because a number of their constituents were slated for transfer to Austin. The reaction was natural and understandable. But the VA had earlier found that the Hines facility had high employee turnover as well as a generally negative employment and performance history. These facts, combined with the GAO report and the VA's own internal study, provided assurance of follow-through on the CDC proposal despite almost certain political protest. But the VA operated for 6 months without a permanent Administrator. And meanwhile, the political infighting, internal and external, raged.

On March 19, 1981, my colleagues from Illinois requested a second GAO report. According to the GAO, "as agreed with the offices of Senators Percy and Dixon and Congressman Hyde . . . we limited (emphasis mine) our review to examining the (1) adequacy of VA's estimates of costs and benefits of establishing the CDC at a single location, and (2) basis for projected personnel savings."

The GAO pointedly notes, "We did not prepare an independent cost-benefit analysis of the CDC, nor did we assess the reliability of the data in the VA's productivity systems." Because of the parameters established by my Illinois colleagues, neither did the GAO "make detailed analyses of the intangible factors associated with establishing the CDC." The GAO concluded their report somewhat ambivalently, pointing out that the VA's examination of the 57 FTE personnel's savings was neither complete nor comprehensive enough to support a statement of whether establishing the CDC would be cost-beneficial. "Because of the Administrator's decision, and since the proposals have not been implemented," they said, "We are making no recommendations at this time."

Earlier, on July 9, 1981, during confirmation hearings before the Senate Committee on Veterans Affairs, VA Administrator Robert Nimmo said that no study of the cost-effectiveness of the CDC clearly supported moving the activity from Hines to Austin, and that the move would not be made until such a study was completed.

But in an internal memo dated July 23rd, the Administrator stated that he had in fact decided not to transfer the Hines DPC target system to Austin. This decision was made despite GAO reports and internal VA findings to the contrary and without benefit of the cost-effectiveness study which only two weeks before Mr. Nimmo had felt so necessary.

I was shocked when I heard this news and felt that surely there had been some misunderstanding or miscommunication. I called Mr. Nimmo and learned from him that plans to proceed with the CDC had in fact been cancelled at his order. He assured me, however, that the Austin DPC would remain intact and that neither systems nor personnel would be transferred out of Austin.

I have now been advised, Mr. Chairman, that several of the medical debt collection and construction systems will in fact be moved from Austin. The order for that change was issued last week. Until such time as the VA can prove that these actions benefit the veteran and the government and do not result in adverse actions against the Austin staff, I will remain publicly and privately opposed to them. I ask, Mr. Chairman where are the management analyses and cost-benefit studies that support these moves? Did Mr. Nimmo order the transfer of these ancillary systems? If so, he has gone back on his word.

In addition to requesting assistance from Chairman Montgomery and this Committee, I have also solicited the aid of Congressman Jack Brooks, Chairman of the Government Operations Committee, which first commissioned the GAO study of the Veterans Administration's ADP resources. Chairman Brooks has requested that the Administrator immediately stop any action to abolish the CDC until his Committee has the opportunity to review all documentation supporting this change. In spite of the Chairman's letter and request to this effect, Mr. Nimmo has "thumbed his nose" at Mr. Brooks—and that is not normally a healthy thing to do in Washington.

Mr. Chairman, I respectfully request that this Committee halt the cancellation of the CDC. We cannot sit idly by while the veterans and the government suffer from the ill-advised and politically-inspired actions of newly-appointed bureaucrats.

The personnel in Austin are upset about the recent turn of events. I visited there last week and talked to many of them individually. Not only do they fear for their jobs, but many of them were transferred in or were hired at the CDC because they welcomed the challenge offered by this new concept. A number of these employees

have bought homes, moved their families and set up a new life in a new community. They do not want to move again. If they stay and just laterally move across to the regular VA data processing branch they will lose the possibility of promotion and the challenge of advancing the CDC concepts.

Mr. Chairman, I respectfully request that this Committee direct the VA Administrator, Mr. Robert Nimmo, to continue the CDC concept in good faith and allow the productive energies of this quality staff to prove their worth. I believe this would be a far sounder course of action than for the Administrator to make a "seat of the pants" decision to abolish this new center. At the very least, I would ask that this Committee direct the Administrator to undertake a comprehensive study of the Veterans Administration's data processing needs. Such a study should specifically include examination of all estimated costs and benefits associated with the CDC, tangible and intangible. I am convinced, Mr. Chairman, that an objective professional and comprehensive study would justify complete implementation of the Austin CDC concept. Parochial political interests should take a back seat to the best long-range interests of our nation's veterans.

In closing, I would also like to say that I object to the way the retirement of Mr. William Martin was handled. Mr. Martin was the director of the VA Data Processing Division, and was directly involved in the VA's decision to establish the CDC. Bill Martin spent 35 years in the VA and twice received the highest VA award an Administrator could give, and twice the second-highest award. Mr. Martin, who spent his life contributing to the service of the VA, was unceremoniously asked to retire from the agency. As head of the data processing area, he had suddenly lost out to the political infighting which included, among other things, the "plug-pulling" on the Austin CDC. Mr. Martin was given two days notice to clear out his desk. He was a career civil servant. His job was non-political, and I ask this Committee, in light of the adverse publicity of hiring and firing in what the Washington Post called "a soap opera," to investigate the treatment of career VA officials.

Mr. Chairman, I did not solicit the CDC for Austin. The VA and the GAO studies revealed the benefits and improvements for all veterans. A non-political decision has now been reversed by crass and crude political action. I am afraid the real victims will be the American people and the veteran.

Chronology of Key Documents Relating to the Austin VA Centralized Development Center

October 6, 1978: Jack Brooks, Chairman, House Committee on Government Operations, requests GAO report on VA's management and use of its automated data processing resources.

May, 1980: VA Administrator Max Cleland requests that a study be conducted to determine the feasibility of a central development/maintenance center.

July 16, 1980: GAO issues report entitled "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs." Report directs VA to develop and follow "a master ADP plan, guided more by overall ADP needs than by parochial wants." Specifically recommends that VA (1) establish a staff dedicated to performing discretionary software work such as development, redesign, enhancement and conversion," and (2) "adopt and act to enforce the management techniques and procedures being proposed for controlling software work."

September 9, 1980: Study completed. Bill Martin memo recommending establishment of CDC. Ray Blunt concurs. Max Cleland, VA Administrator, approves concept.

October 1, 1980: Congressman Pickle issues press release announcing expansion of Austin VA Center.

January 12, 1981: Cleland letter to Senator Roth: "Establishing this facility will centralize the development of technical specifications and programming at one location and standardize the development methodology throughout the agency." . . . "With this centralized approach, more control can can be exercised over systems development and resources can be shifted, depending on priorities, to permit more effective and efficient use of VA's system and programming resources."

February 20, 1981: Congressman O'Brien's letter to VA expressing concern about proposed transfer of Hines Data Processing Center.

February 23, 1981: Congressman Hyde's letter to VA urging reconsideration of proposed move of Hines DPC.

February 25, 1981: Congressman Erlenborn's letter to VA inquiring as to status of proposed Hines move.

February 27, 1981: Senator Dixon's letter to VA requesting immediate halt to all plans to move from Hines.

March 16, 1981: Senators Percy, Dixon, and Members of Illinois Delgation's letter to Stockman requesing suspension of funds for moving Hines DPC.

March 19, 1981: Senators Percy and Dixon, Congressmen Hyde, Yates, Derwinski, Crane, Erlenborn, Rostenkowski and O'Brien request GAO report "limited . . . to examining the (1) adequacy of VA's estimates of costs and benefits of establishing the CDC at a single location, and (2) basis for projected personnel savings."

March 24, 1981: Congressman Pickle's letter protesting delays in consolidation of data processing at Austin CDC.

March 27, 1981: Senator Simpson, Chairman of the Senate Committee on Veterans Affairs, requests report from VA on proposed move: "My only desire is to assist the VA in undertaking the most cost-effective utilization of its resources, regardless of which state or Congressional District may be adversely or beneficially affected."

April 10, 1981: Memo from VA Inspector General questions projected savings of 57 FTE positions and concludes, "The proposed move is not justified."

April 28, 1981: Congressman Hyde's letter to Acting Administrator urging rejection of proposed move. Hyde quotes Raymond S. Blunt, "In no instance would this decision be cost-beneficial." . . . "I believe a more thorough review and analysis is warranted." . . . "The decision lacks an assessment of a 'pilot' CDC experience which could lead to a more informed position."

May 6, 1981: Congressman Pickle's memo to Congressman Sonny Montgomery, Chairman, House Veterans Affairs Committee, requesting staff review of proposed move.

May 13, 1981: Acting Administrator Rufus Wilson's letter noting, "The CDC (Austin) has been in operation since January of this year." . . . "In the development area, all responsibility was transferred to the CDC (Austin), with the exception of the compensation, pension and education systems. The only issue remaining for decision involves location of developmental activities for these systems, which are presently located at Hines DPC.

June 5, 1981: Congressman Pickle's letter to Stockman requesting OMB review.

June 9, 1981: Congressman Pickle's letter to Nimmo, new VA Administrator, expressing concerns regarding "practical considerations."

June 29, 1981: Nimmo replies to Congressman Pickle: "I have attempted in vain to find any clear analysis or study which purports to justify the contemplated relocation." . . . "I do not intend to allow the VA to take any actions which have politically sensitive implications unless and until the purpose and justification of such actions are clearly documented and the proposal coordinated with appropriate Members of Congress."

July 7, 1981: Congressman's Hyde's letter to Nimmo requesting a "definite hold" to be placed on the proposed move.

July 21, 1981: Stockman reply to Congressman Pickle states, "The plan for the center was developed within the agency on the basis of improved management efficiency and the anticipated recurring net savings which would be realized. OMB concurred in the proposal during the review of the agency's fiscal year 1982 budget."

July 23, 1981: Nimmo memo and letter to Congressman Pickle cancels implentation of CDC at Austin and directs that compensation, pension and education development functions will remain at Hines Data Processing Center.

July 24, 1981: Congressman Pickle's second letter to Stockman asking that OMB again review Austin CDC proposal.

August 13, 1981: Congressman Pickle's latter to Jack Brooks requests Committee on Government Operations and GAO review of decision to cancel CDC.

August 17, 1981: Don Custis, Chief Medical Director, VA, recommends moving "all pharmacy, maintenance and development activities" to the Medical Computer Support Center at Hines.

August 25, 1981: Stockman replies to Congressman Pickle: "Understandably, he (Nimmo) wants to assure himself that these changes are efficient and cost-effective before allowing them to proceed. It is our understanding that this delay is intended to be of short duration and is in no way to be considered a precursor of a reversal of prior policy."

September 4, 1981: Congressman Montgomery schedules Veterans Affairs Subcommittee on Oversight hearings on Austin CDC.

September 8, 1981: Congressman Brooks' letter to Nimmo requesting that "no further action be taken to disband the Austin CDC."

September 14, 1981: Congressman Pickle's letter to Nimmo protesting dismantling the Austin CDC by moving medical systems to Hines, debt collection systems to St. Paul, and Office of Construction Systems to Washington.

September 18, 1981: GAO issues report on Austin CDC. Concludes: "VA's examination of the estimated costs and benefits of the CDC was neither complete nor

comprehensive enough to support a statement of whether establishing the CDC would be cost-beneficial." GAO notes limitations placed on their review and points out: "We did not prepare an independent cost benefit analysis of the CDC, nor did we assess the reliability of the data in the VA's productivity systems." . . . "We did not make a detailed analysis of intangible factors associated with establishing the CDC." GAO ends report with statement: "Because of the Administrator's decision and since the proposals have not been implemented, we are making no recommendations at this time."

PREPARED STATEMENT OF JACK J. SHARKEY, ASSISTANT DEPUTY ADMINISTRATOR FOR DATA MANAGEMENT AND TELECOMMUNICATIONS, VETERANS' ADMINISTRATION

Mr. Chairman and members of the subcommittee: I thank you for this opportunity to review with you the VA's current operations and plans with regard to our automatic data processing activities. Your request covered a wide range of major automation acitivities with which we are presently involved and with which we hope to become involved in the near future. I shall address each of these activities in detail very shortly, but I should like to open my testimony, if I may, with and observation that I believe all of you share: automation will become an increasingly critical function within the VA in the very near future, especially in light of the budget constraints and the concomitant requirements to find ways to increase productivity throughout the agency.

I believe that automation is one of the most important means by which we can trim costs without disrupting the level of service we now provide to the Nation's veterans. I, therefore, welcome the concerns and support of this Subcommittee and the Veterans' Affairs Committee which have been expressed for our automation posture and plans. Your support and concern are further manifested in your invitation to appear here today to discuss the implementation of the Target System and the Target contract, as well as our efforts to improve our data management policies, procedures, and plans for the future.

I should first like to turn to the subject of Target implementation. Since the discussion before this Subcommittee in September 1979, we have made significant progress in the nationwide implementation of on-line claims processing through the Target System. At that time, however, you had expressed concern about the delays which had been encountered in the progress of our implementation and the resultant effect on costs and service. I believe in the hearings in June, July, and September of that year you question a number of VA field office personnel and representatives from Honeywell, Inc., on the same subjects.

I will briefly describe the major milestones that have been achieved since the hearing of September 1979. As you may recall, we had successfully begun Phase I operations throughout the Central and Western Regions. However, we were forced to suspend Phase I temporarily at some fifteen Eastern Region Regional Offices because of a severe decrease in system availability. The decrease in system availability resulted from the inability Honeywell software to handle the entire Phase I workload of the Eastern Region. When confronted with the additional Phase II workload at the Philadelphia and Baltimore Regional Offices, Honeywell made sufficient corrections to the software to justify resumption of Phase I at the suspended Regional Offices. By October 1979, all Regional Offices in the Eastern Region were operating under Phase I requirements.

The operation of Phase II beyond the Philadelphia and Baltimore Regional Offices was delayed due to the difficulties experienced in Phase I and also because of the unavailability of certain software features. These software features were, however, provided in October 1979 and the Phase II operation was initiated at the Chicago Regional Office shortly thereafter. Between November 1979 and September 1980, all remaining Regional Offices began Phase II operations. In March 1980, we installed the Chicago Development System, or CDS, which is a stand-alone computer at the Hines Data Processing Center. The CDS is used to develop and test the Target application software and has improved our ability to install application software that is as near to error-free as currently possible. In July 1980, we began the operation of the Beneficiary Identification and Records Locator (BIRLS) application on the IBM System 370/168 at the Austin Data Processing Center which improved Target performance by relieving the burden of a slow-running BIRLS system from the Regional Data Processing Center computers. Finally, in August 1980, Honeywell provided the VA with the capability to store the Target on-line journal records on a high-speed disk, rather than on a magnetic tape. This disk innovation negated the frequent intervals of unavailability that occurred in the Target System whenever the on-line software had to recover from momentary failure conditions. Since August 1980, the Target system has had a very stable profile of availability.

Whereas overall system availability has been remarkably good—routinely exceeding the much discussed 95 percent measure each day—we are seriously concerned about the capacity of the existing Target system to handle the growing, on-line workload. We already experience unacceptably long terminal response times during those hours of the day when Target is most heavily used. As planned essential DVB functions are installed, the response time will be degraded even further. Without relief, or unless the installation of these essential functions is postponed, the system could become paractically unworkable by the user on a nationwide basis. A 30 or 40 percent workload increase will not simply add a few seconds response time but will make the on-line system unworkable for all practical purposes. We feel that we have about reached the saturation point of this critical system.

We consider the augmentation of our Regional Data Processing Center to be a critical first step to any further enhancement of Target, an initiative that we are currently studying closely. The Chairman of the House Subcommittee on Appropriations for HUD-Independent Agencies, the Honorable Edward P. Boland of Massachusetts has recognized this issue in the appropriations hearings as evidenced in the following statement in the Congressional Record of September 15, 1981 (p. H6205):

"During the Veterans' Administration's fiscal year 1982 appropriations hearings, we had extensive discussions regarding the compensation, pension and education (C.P. & E.) Target system. We are pleased that the VA has worked out all of the initial technical difficulties and has the system completely operational nationwide. The Department of Veterans Benefits has achieved all of the 1,414 FTEE savings on the originally projected dates with a life cycle net savings of over $200 million.

We understand that due to continuing extension and enhancement to the system that the supporting hardware resources are reaching capacity limits. The committee would be willing to entertain an appropriate reprograming request for additional target computer hardware resources if substantiated by the VA for sound reasons".

Since the Hearing of September 1979, the VA has taken, or is in the process of taking, some decisive steps to reconcile outstanding contract issues between the Government and Honeywell. Although I do not have the understanding of these actions that a Government contracting officer might have, I will make an effort to explain each action as clearly as possible.

In late 1979, we recognized that the VA had a valid claim for liquidated damages for Honeywell's failure to deliver ADPS software in May 1978. We also recognized conversely that Honeywell had developed some critical software functions not required by the contract; these software functions were, however, clearly essential to the success of Target. Honeywell had a legitimate basis for claiming equitable adjustments under the Changes Clause of the contract. An economic analysis of the Government's liquidated damages claim and Honeywell's potential claim was performed, and the analysis substantiated that it was to the Government's advantage to negotiate a supplemental contractual agreement. Therefore, an agreement was signed in April 1980 confirming the resolution.

As I mentioned in my summary of Target milestones, the scheduled acceptance testing of 15 Eastern Region Regional Offices was suspended in June 1979 and substantially resumed in September 1979. A claim for damages incurred by the VA because of this delay was drafted in July 1979; however, the agency decided not to process the claim until the negotiation of the aforementioned supplemental contractual agreement was completed. At the same time, Honeywell presented claims for the delayed installation and start of acceptance testing of the Newark Regional Office. The cumulative delays associated with the start of acceptance testing for Newark were subsequently determined to be the mutual responsibility of both the Government and Honeywell. Following several months of negotiations with Honeywell, both parties have agreed to execute another supplemental contractual agreement to resolve these outstanding claims which should result in a net amount of $635,962 due the VA.

As a final contractual matter, I want to update the Committee on our continuing administration of down-time credits and claims. We have been operating a sophisticated automated inventory management system since November 1979. This system has enabled us to file timely, monthly credit claims with Honeywell related to the equipment down-time and the repair responsiveness articles of the contract. Through July 1981, we have received credits totalling $123,466 from Honeywell which were based on these monthly claims.

Studies were initiated in early 1980 to determine the feasibility of centralizing a staff of systems analysts and programmers in Austin, Texas, to accomplish the discretionary development efforts by the agency. The Austin station was established as a prototype to test the Centralized Development Center concept, and a number of new systems development activities were initiated there. A thorough review of the

decision to proceed with the remaining phases of implementing the center and the concept was then conducted.

The emphasis in this review was directed toward the needs of the VA automation programs in the next decade, many of which are already coming into focus. These needs include conversion of the large library of assembly language software, the large scale replacement of obsolete hardware, the system-wide establishment of medical automation systems, and the consolidation of diverse functional systems and data bases. Accomplishment of such tasks must recognize current funding limitations and the minimum risk involved in maintaining critical programs. The success with which the VA meets these objectives will impact the character of VA operations and service to a degree not experienced in recent years.

The Administrator concluded on the basis of this review that the CDC concept, with its commitment to a highly centralized mode of development management, did not offer the flexibility and access to options that are foreseen to be necessary in dealing with the complex issues that the next few years will bring.

You also requested that the subject of overall VA data management improvements be discussed, most specifically those recommended by the General Accounting Office in the report of July 16, 1980, titled "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs." Before addressing the report's specific recommendations, I would like to point out that both prior to and during the GAO study, the VA was conducting a thorough examination and long-term, corrective program in the automation area. This effort culminated in the realignment of automation resources and responsibilities, the adoption of a rigid system development methodology, a formal review and approval process at the highest levels of management, and a revised Agency policy which sets forth the roles and responsibilities of both the users and ODM&T.

The procedures document prescribes a methodology and documentation standard for all automation systems development throughout the systems life cycle. The systems life cycle is broken down into discrete phases ranging from conception to operation. At key points, the methodology provides for top VA management decision on whether to proceed to the next phase or abort the project.

The VA's efforts were initiated by the former Administrator in a memorandum dated July 1, 1977, to all department and staff office heads. Our actions mentioned above and those efforts presently underway clearly demonstrate our commitment to sound management of VA automation resources and activities.

Our previous actions outlined above and those efforts presently underway clearly demonstrate our commitment to prudent management of VA automation resources and activities.

The basic policy and procedures related to these matters were released as Interim Issues 00-80-15 and 00-80-16 on July 21, 1980 and July 22, 1980, respectively. The policy document makes the user elements responsible for defining the function or problem for which automation may provide a solution. DM&T is responsible for designing and developing the technical solution to the user's problem. The total process is a joint, team effort to reach an optimum solution as there is no absolute line of demarkation between the user specifications and the technical requirements of a system. These two documents (Interim Issues 00-80-15 and 00-80-16) are currently in effect but will probably undergo some revision as the Administrator of Veterans Affairs reviews our progress.

The GAO report contained a number of specific recommendations to which the VA has responded both in terms of specific actions and planned efforts. I would like to comment on each of these recommendations in turn.

The GAO recommended that the Administrator direct ODM&T to:

Establish a formal capacity in planning process that will, among other things, consider the interdependencies among users, the compatibility of equipment, the procedures for translating user requirements into corresponding computer capacity, and the capacity and condition of existing equipment.

Prepared a plan for competitively acquiring equipment in time to meet anticipated needs.

The Computer Resource Management Division of ODM&T prepares the annual Equipment Plan as an appendix to the agency's ADP and Telecommunications Plan. While it is updated on a quarterly basis, formal revisions will be added to the ADP and Telecommunications Plan on a semi-annual basis.

ODM&T has recently established a Computer Resource Management (CRM) program to: (1) measure current ADP equipment usage characteristics; (2) define ADP equipment capacity in relation to current resource usage characteristics; (3) assess ODM&T's ability to meet projected user ADP requirements; (4) establish plans to ensure that ODM&T has the necessary ADP equipment capacity to meet projected user ADP requirements; and (5) ensure that when additional ADP equipment is

required we can identify and obtain the appropriate ADP equipment to meet user needs.

To implement this program, ODM&T has established a separate Computer Resource Management Division within the Technical Advisory Staff and has recruited several professionals from industry and Government with CRM and capacity management backgrounds. To date, this group has developed a comprehensive plan for the implementation of capacity management procedures within ODM&T and an initial 5-year ADP equipment utilization and replacement plan. It has also rewritten the basic ODM&T policy and procedures controlling equipment usage reporting and begun the initial analysis required for the development of an ODM&T-wide equipment reporting system. The implementation of this program will satisfy fully all concerns regarding the management of ADP resources addressed in the GAO report. The implementation of this program within ODM&T and the VA has my highest priority and commitment.

The GAO report recommended that the Administrator:

Amend his ADP policy to require users to distinguish between required and discretionary work in assessing, planning and approving software work.

Enforce his ADP planning and approval procedures.

Estatablish a staff of ADP analysts and programmers to work on discretionary projects and assign skeleton crews to provide systems maintenance.

Adopt and act to enforce the management techniques being proposed for controlling software and work and,

Reexamine and correct the procedures for preparing specifications that are used to task the software programmers.

The development methodology which we have adopted makes a clear distinction between discretionary and required work and spells out that the user's responsibility for defining fuctional requirments and ODM&T's responsibility for identifying technical specifications. This methodology allows for the enforcement of management techniques being proposed for controlling software work and correction of procedures for preparing specifications that are used to task software programmers. Additionally, ODM&T has prepared a standardized set of definitions for internal use which clarify the distinctions among such terms as maintenance, new systems, and redesigned systems. These definitions will facilitate our ability to distinguish discretionary from required work by removing the possibility of ambigious determinations.

The current approach is to develop centers of expertise at various locations to exercise a more flexible approach to development resources, while at the same time placing increased emphasis on greater control of automation development projects for the Agency as a whole. The centers of expertise concept is one that centralizes systems development, system maintenance and functional users in close proximity. Under this concept, the expertise for a specific user function, as well as the ADP expertise, will be in an environment which optimizes user-technician interaction and, consequently, efficient systems development and maintenance. This approach will help us, to recognize the interdependencies of systems under the jurisdiction of a specific user and will, in the future, help us to develop shared data bases for these systems.

The ongoing effort to improve ADP planning and approval procedures continues. ODM&T is presently viewing options to strengthen its Planning Office and re-orient its planning procedures. A new planning approach towards the identification of both short- and long-range planning objectives will be adopted and we will place greater emphasis on the application of new technological developments as well as their integration with our agency-wide planning systems budgetary. At the agency level, the ADP Review Group was also reinstated in May 1980 to serve as the final determining body in the ADP approval process.

The GAO recommended that the Administrator establish a formal structure and process which at a minimum:

Requires participation by users in the development of plans for automation systems they will be expected to use, and

Assigns to officials whose organizational units are expected to use automation systems a share of the accountability for formulating the system's requirments and for improving performance based on the use of completed systems;

Makes the Office of Data Management and Telecommunications responsible for all computer purchases and directing that equipment acquisitions be consolidated where practical to gain savings from bulk purchases;

Require the ADP Review Group to monitor the planning, development, coordination, and use of ADP resources agency-wide and advise the Administrator of corrective actions needed.

The VA already has a formal mechanism which requires user participation in the planning and development of automation systems which they will be expected to use. The July 1980 policy directives, previously referred to, formalize the procedures for the development and management of automation applications. These policies also require users to initiate the systems development process and development functional specifications from which DM&T develops appropriate technical designs. User and DM&T accountability for these respective functions is defined at various steps of the systems development process.

The Agency's major automation approval elements in this area, notably the Assistant Deputy Administrator for Program Planning and Evaluation (PP&E), Assistant Deputy Administrator for Data Management and Telecommunications (ADA/DM&T), and the Chief Medical Director (CMD), have established an agreement whereby the ADA/DM&T will coordinate procurement for all automation systems, excepting only those defined as highly unique medical applications, for which CMD shall have approval authority.

One of the ADP Review Group's efforts has been to set priorities for ADP initiatives in the Fiscal Year 1982 budget. All user departments and staff offices participated in this endeavor and ranked the initiatives from the Agency-wide perspective. Consequently, DM&T is now updating our 5-year ADP plan. One of the first steps in the process is DM&T's solicitation of users' respective long- and short-term ADP needs.

The ADP Review Group has recently been briefed on the approach to updating the ADP long-range plan, particularly with reference to its requirements that the interdependencies of users in the systems development efforts be fully considered. When the plan updating is complete, the Group will ensure that the plan identifies such interdependencies.

The GAO recommended that the Administrator continue to encourage individual hospitals to automate unique hospital functions while establishing greater control by:

Fully supporting the new efforts of the Department of Medicine and Surgery to coordinate and control the use of computers by hospitals.

Monitor the effectiveness of the recently formed users group for the Hospital Care Information System project to determine the degree of the group's involvement and the extent of its accountability for results.

Require that the interdependencies among the existing and proposed ADP applications in other VA departments and those of the Department of Medicine and Surgery be identified and coordinated.

The Administrator is fully supporting the effort by the Department of Medicine and Surgery (DM&S) to coordinate and control the use of computers by VA medical centers. The DM&S Computerized Medical Systems Office and the DM&T Health Care Delivery Systems Support Service jointly coordinate and control the use of data processing by VA medical centers. All procurements of medical automation systems are scrutinized and approved by both offices.

The Administrator also concurs with the recommendation to monitor the effectiveness of the recently formed Health Care Information System (HCIS) user group. The designated user committees have produced functional requirements documents for the HCIS core elements. These include patient registration/location, admissions/discharges/transfers, centralized scheduling, pharmacy, and clinical laboratory systems. A sixth functional requirements document, also developed by the user committees, integrates these modules. Additionally, joint DM&S VACO/Field Committees, have been established to review functional specifications for medical systems being developed in-house.

Your request for information regarding our plans for the future in a number of areas provides me with a timely opportunity to share with you some of the automation plans which we are currently formulating.

The area of improvements and additions to automation support for medical programs is one of the most ambitious tasks we have attempted. There is no question that the VA is behind the private sector in bringing the speed, versatility and efficiency of computers to the delivery of health care services, and this need is growing more critical each day.

The Conference Report of the House and Senate Veterans' Affairs Committees entered into the Congressional Record of November 21, 1980 (H11205) provides for continued planning for patient care computer support in the hospital and medical center environment. The conference expressed the belief that the Veterans Administration should: "determine which of the available functional applications (such as patient scheduling) or intergrated (which combines functional applications into hospital-wide systems) technologies would be most cost effective and of maximum value to the Agency's vast medical center network."

This program: "should utilize current off-the-shelf technology (which includes both currently operating VA Medical Center Systems and commercially available systems)."

Further, the conferees will expect that suitable engineered testing and validation methods will be used, "that various alternatives will be analyzed before installing VA-wide solutions", and that functional and integrated solutions will be pursued simultaneously. Resources were provided by the Congress in Fiscal Year 1981 for both integrated and functional health care information systems as follows:

a. $800,000 and ten (10) positions for continued planning (DM&S).

b. $900,000 and 43 positions to support the installation of functional medical computer information systems, including the Automated Pharmacy Support System (APPLES) (DM&T).

The main medical automation projects currently underway are being pursued jointly by DM&S and ODM&T management with the full participation of users at the hospital level. These projects are: The Automated Pharmacy Support System, the Functional and Integrated Hospital System (FIHS), the Admissions, Transfers, and Discharges, Scheduling/Clinical Laboratory (ADTS/L) System, the Automated Hospital Information System (AHIS), and other unique DM&S Medical automation Systems initiatives.

The Automated Pharmacy Support System project has been progressing on schedule. The conversion of the outpatient pharmacy system was completed in July 1981 and the VA has proceeded to install this converted system in Medical District #17 (Chicago) to test the system in a live environment. There are four medical centers in Medical District #17 and the implementation activities have been proceeding according to our plans. Our implementation schedule for the Medical District #17 medical centers is the following: Westside—Began live production on August 3, 1981; Lakeside—Began live production on Septmber 14, 1981; Hines—Began live production on September 28, 1981; and North Chicago—Scheduled to begin live production on November 2, 1981.

The enhancement effort for the system (inpatient and inventory) is also proceeding on schedule. The Functional Requirements, System Specification, and Data Base Design documents have been completed, and the enhancements are scheduled to be completed and installed for a pilot test starting in March 1982. The Hines Medical Center in Medical District #17 will be the pilot site for testing the enhancements and will provide VA users with the opportunity to thoroughly test the functions of the enhanced pharmacy system.

The formal cost/benefit study of the Pharmacy System which was completed in February 1981 showed that the Pharmacy System will achieve an estimated present value net benefit of $28,384,000 and a cost-benefit ratio of 1.45 to 1. The net undiscounted savings will be an estimated $52,365,000 and the break-even point will be realized in March 1987.

On January 27, 1981, the VA sent to the General Services Administration an Agency Procurement Request (APR) for the competitive acquisition of 2,867 terminals to be used for the implementation of the pharmacy system. On April 28, 1981 the GSA granted the VA a Delegation of Procurement Authority (DPA) for the Pharmacy System terminal procurements. These procurements are three-fold:

(1) Terminal systems hardware and software compatible with Digital Equipment Corporation (DEC) minicomputers (supporting 13 medical districts),

(2) Terminal systems hardware and software compatible with Data General minicomputers (supporting 8 medical districts),

(3) Communications facilities for both of these minicomputer environments.

Our approved plans for the Automated Pharmacy Support System call for system implementation in 21 Medical Districts consisting of 180 facilities. Plans for further expansion to the remaining 7 medical districts are currently under development.

Resources were also provided by the Congress in Fiscal Year 1981 for the continued planning of Functional and Integrated Hospital Systems (FIHS). The FIHS project involves two major areas:

Award of a contract for the development of integrated and functional health care information systems strategy, which will form the basis for the selection of available, currently operating functional and integrated technologies that are most cost effective and of maximum value to the VA.

The selection and award of contracts for a commercially available functional and integrated hospital system which will provide suitably engineered demonstrations and validation tests.

DM&S has prepared a Request for Proposal (RFP) for contractor assistance to develop the methodology to select, demonstrate, and evaluate systems in the VA Medical Centers and those that are commercially available. This RFP was issued

and proposals have been received from the prospective firms Evaluation will begin shortly.

ODM&T has prepared a draft RFP to obtain a "Commercially Available" integrated hospital system from the private sector for demonstration in the VA Medical Center environment. The RFP is currently being reviewed by a joint VA DM&S Center Office/Field Committee. When completed, the RFP will be issued to industry for proposals.

Current plans call for the procurement of vendor supplied integrated hospital systems for demonstrations at up to 3 VA Medical Centers. The vendor will provide a "turn-key" system which will include all hardware, software, operations and maintenance support. The basic functions to be demonstrated in the integrated system will be Pharmacy, Scheduling, Registration, Admission/Transfer/Discharge, and Clinical Laboratory. The demonstrations will be conducted for a period of about two years.

We are also in the process of determining which of the available functional applications (such as patient scheduling) would be most cost effective and of maximum value to the Agency and should be included in currently operating VA Medical Centers Systems. We have thus initiated an in-house development project involving the determination of the functional specifications followed by the programming of an automated Admissions, Transfers and Discharges, Scheduling/Clinical Laboratory (ATDS/L) system encompassing the same general areas as are currently being processed on VA owned computers at several VA Medical Centers. The functional requirements for this system have been completed and are currently being reviewed by a joint DM&S VACO/Field Committee.

Plans are that a demonstration of the ADTS/L System will be conducted at a VA Medical Center in Medical District No. 17 (Chicago area) for a period of about two years. The demonstration will utilize computer resources located at the Medical Computer Support Center at Hines, Illinois. The computer resource will be connected by telecommunications facilities to terminal systems located at the VA Medical Center.

The existing Automated Hospital Information System (AHIS) became operational at the Washington VAMC in 1967. The entire operating system and related system software and application programs were developed using assembly language (IBM-ALC). AHIS deals exclusively with inpatients, with input information coming from Admissions and Dispositions, Patient Scheduling and Tracking, Dietetics, Clinical Laboratory, Radiology, Medical Intensive Care Unit and Management.

Current plans call for the conversion of AHIS from an obsolete computer to a state-of-the-art minicomputer. A formal cost-benefit study of AHIS was requested in August 1980 and completed in October 1980. The study concluded that the converted AHIS would provide a present value net benefit of $1,054,000, achieve a cost-benefit ratio of 1.51 to 1, and a break-even in 2.9 years. Based on these findings, the study team recommended that the conversion be accomplished, and the VA initiated action to recompete the AHIS conversion contract.

On April 17, 1981, the VA was notified by OMB that we do not want us to proceed with the procurement action for the AHIS software conversion project. Instead, we were directed to initiate interim measures to keep the current AHIS system running until the new HCIS system was installed, which at that time was scheduled for the 1989–1990 timeframe. AHIS is currently operating on the basis of this OMB directive.

For the unique DM&S Medical Automation Systems initiatives, current DM&S plans call for the continued planning for both integrated and functional health care information systems. On March 3, 1981, the Chief Medical Director approved a plan for utilization of existing computer resources located at VA Medical Centers. The plan related mainly to unique medical applications such as EKG and Psychodiagnostic Assessment. These unique applications are controlled by DM&S for both purposes of development and operation.

In the benefits area, we are also moving forward with enhancement to the currently operational Target System, both in the area of the redesign of the Central Payment System to replace the current CP&E batch processing system and in improvements and additions to the RDPC on-line systems. Since the last hearing in September 1979, the following major improvements have been installed:

1. The Annual Income Questionnaire (AIQ) capability installed in May, 1980, provides the operator with the means to process income transactions via Target. This capability allows 50 percent of all AIQ transactions referred to Regional Offices (or 19.5 percent of the total number of AIQ's) to be processed on Target. The capability to process special AIQ Stop, Suspend and Resume transactions on Target will be installed prior to this year's AIQ season. Seventy-five percent (75 percent) of

all AIQ transactions referred to Regional Offices will now be processed on Target (or 39.5 percent of all AIQ's prepared).

2. Improved pension, installed in February 1980, provided for input of support data in the income area to support awards for Public Law 95–588 cases.

This was an extensive effort which amounted to the development and installation of a whole new pension system into Target.

3. The Chapter 32 interim system, installed in February 1981 provided Chapter 32 original award processing on Target.

4. Phase I of the total Chapter 32 system, scheduled for October 1981, involves installing the entire new system except certain fiscal transactions to process Chapter 32 benefit claims through Target. It incorporates Regional Data Processing Center on-line screen processing with TCS overnight batch update processing. Included in this initial installation are both original and supplemental award processing, stop, suspend, resume, certification and accounting processing. This is scheduled for installation later this month with the remaining piece (Phase II) approximately six months later.

5. Minimal input capability for Chapter 34/35 benefits, installed in June 1981, allows the operator to generate multiple revised award lines by revising one or two fields in an existing award line, saving the operator from re-entry of multiple award lines. Overall revision of the award generation processing and subsequent changes to batch programs has substantially reduced rejects from education cycles from several thousand per cycle to fewer than one hundred. This major revision involved modification to or origination of over 140 programs.

6. Compensation and pension award validation, installed in April 1981, incorporated new 403-Disability/Death Award screen edit procedures and new processing to insure that the awards entered would not reject due to inconsistencies between support data and award data. Calculation of the rates payable was revised to include improved pension awards and to utilize master record data.

7. The Veterans Services Adjudication End Products (VSAEP) system, installed in June 1981, is a flow control, work measurement and quality control system. A linkage with the Target system has been developed to extract data from the pending issue files at each Regional Data Processing Center for weekly transmission as input to the VSAEP system. This extraction of data from Target saves the preparation of approximately 70,000,000 input documents and cards by the Regional Offices. In addition, data under the new Target input methodology is captured within five working days as compared to at least ten working days in the old system. Previous input equipment has been eliminated.

In other areas associated with veterans' benefits, we are moving forward with plans to enhance, redesign, or consolidate processing systems.

The VA Insurance Program consists of five major life insurance programs for eligible members of the Armed Services, veterans of World Wars I and II, the Korean Conflict, the Vietnam Era and peacetime periods. There are currently approximately 4.6 million policies with a face value of 32 billion dollars.

Nearly all Insurance System operations are handled by the Philadelphia VA Data Processing Center (DPC). Some pre-processing and output reports, etc., required by the St. Paul Insurance Center are currently handled by the St. Paul VADPC. The original programs were written during the mid-60's for a now obsolete computer system (IBM 7080). These programs are still in the native language and are processed on a newer but outmoded system which "emulates" the obsolete one.

The current Insurance System does do a creditable job in serving the needs of the veteran. However, due to the limitations of software and hardware, it can no longer meet any new demands. Legislative requests must often be completed either manually or automatically only after long delays due to inflexible programs and rapidly-depleting expertise.

The VA has conducted ADP Preliminary and Feasibility Studies which have indicated that an Insurance Redesign is required. This redesign will provide an on-line system with front-end edits to provide immediate access to veteran data. All input of sufficient volume would be entered via visual display terminals (VDT's) instead of entry after reviewing hardcopy. This approach would eliminate the need for manual delivery of input, the data entry input documents, and manual control to ensure that input is provided to the system. By utilizing the terminal to call up the veteran's master record, the use of record printouts will be virtually eliminated. All actions will be processed on a daily basis. By utilizing special data base software, ad-hoc reports will be available in hours instead of months. By using pre-selected standard paragraphs, letters could be composed on-line, reducing the manual typing process. The Actuarial Staff would use on-line input to develop dividends and perform other statistical comparisons. A Pending Issue file could be developed as an aid to determine status and age of pending actions. The Insurance Redesign will

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take place in two phases. First, an on-line, inquiry-only system will be developed to provide immediate access to veteran's data via a number of different terminal "screens." This function will be installed in late FY '82. All other Insurance functions would be processed as they are now. The second phase would provide on-line inquiry and update using software written to new user specifications. This phase is targeted for an FY '85 installation. Overall, the Redesigned System will provide better service, reduce administrative overhead and paperwork and provide better management control.

During Phase One, or the inquiry-only portion of the Insurance Redesign, VDT's from the Philadelphia and St. Paul Insurance Centers will be serviced by the existing Target (Honeywell 66/80) equipment. The Target equipment will be augmented with sufficient random-access equipment to store the Insurance Data Base. During Phase Two, a third processor will be required at Philadelphia to process the fully-redesigned Insurance System. Programs will be developed using current state-of-the-art ANSI COBOL.

Initial plans and information gathering efforts are also underway to enhance the various systems associated with loan guaranty programs.

There are two major areas associated with this effort. The first one is to determine the feasibility of rapid access for the Loan Guaranty files. We are currently in the early stages of the preliminary study. The second major area is the replacement of the mortgage payment remittance systems at the Austin Data Processing Center. When installed the system would provide for updating the master file on a more timely basis, with a major added benefit of gaining one day's interest on 1–3 million dollars returned daily to the U.S. Treasury.

In the area of debt collection, modifications are planned to the Centralized Accounts Receivable System (CARS). This system was developed in 1974 to serve as the system for recouping DVB benefit overpayments. CARS was redesigned in 1977 to expand the capabilities of the system and upgrade the application to a third generation processing environment. Since the 1977 redesign, the functions of the system have been significantly expanded. In addition to its normal functions of debt collection, items such as Justice Referral and District Counsel Referral have effectively made CARS a tracking system for the legal staffs of approximately 56 District Counsel Offices.

Over the last year, Government debt collection regulations have come under intense review by OMB, GAO and several Congressional committees. The outgrowth of these reviews has been significant changes in debt collection policy and procedures. It should be stressed that while there have been extensive revisions to debt collection policy, these revisions in most instances do not replace existing requirements but rather augment them and compound the problem of their implementation. These actions have precipitated adoption of a development/implementation approach that provides a mixture of legislative initiatives and automation of manual procedures which will permit maximum legislative implementation without reducing the quality of service.

Debt collection legislation enacted during 1980 greatly expanded the VA debt collection effort. CARS, the VA's automated collection system, must undergo a complete restructuring to accommodate the enacted legislation. Additionally, these changes must be accomplished in such a way as to permit CARS to process all accounts daily so that funds collected can be deposited with the Federal Reserve, to incorporate logic which will lessen the resource requirements on the system users, and to maintain the current level of system flexibility and overall quality of service to the Agency and the debtor.

The following items related to the new legislative requirements have been accomplished:

Expansion of Education referrals to the District Counsels from the Centralized Accounts Receivable System (CARS).

Revision of Justice/District Counsel referral.

Reactivation of the maximum number of terminated education accounts receivables which the current computer can support (10,000 out of 740,000).

Development of letters and logic to handle reactivated accounts as well as special reporting to show collection status of the reactivated accounts.

Currently, the Agency is developing a three year Debt Collection Plan in response to OMB Bulletin 81–17 to satisfy the legislative requirements enacted in 1980. The St. Paul Data Processing Center (DPC) will become an integral part of the Agency's center for debt collection activities. This will require a re-staffing of professional people since the earlier proposed closing of the St. Paul DPC has resulted in a number of personnel either retiring or transferring to other employment. Additionally, new equipment will be required to support the expanded debt collection activity. Currently, St. Paul has only an IBM 360/40 to support its automation mission.

Together with the major areas of medical and veterans benefits programs, there are a number of other areas related to the various staff functions which are also proceeding.

One of the most important of these is the Personnel Accounting and Integrated Pay System (PAID), which maintains personnel, payroll and accounting information for each employee of the VA. Approximately 40,000 personnel actions are entered into the system each week and over 200,000 checks representing the $188 million agency payroll are produced biweekly. Monthly, nearly 200 reports are generated and sent to various agency elements.

The increasing demands on all functions of the PAID System have outstripped the basic design of this system which was developed and installed in the mid-60's. Additional requirements imposed by law, regulation and services to employees have expanded the system to a point where it is unwieldy, cumbersome and unresponsive to user demands. The users' stated need is for a state of the art PAID System which will be responsive to current and future Agency human resource management functions well into the 1990's.

Recognizing the Agency's responsibility to manage its human resources effectively and efficiently, a major automation initiative to study the redesign of the PAID system was approved by the Agency's ADP Review Group at the end of Fiscal Year 1980. Budgetary approval was obtained to proceed with the system requirements definition, design alternatives and functional/technical specifications.

I realize that our plans are ambitious, but they are, quite frankly, essential improvements to data processing services for the agency. Without such improvements, it will be more and more difficult in the coming years to cope with our projected workload. We will, of course, continue to exert our energies and resources to making improvements wherever possible. In some cases, it may be necessary to redirect strategies and to extend the target dates for some activities, but we will continue to be mindful of the needs and requirements or our user departments and offices.

I again thank you for this opportunity to present our current status of activities and our future plans. Those of us who are here today will be pleased to answer any specific questions you may have on these areas or on other areas I have not addressed.

VETERANS ADMINISTRATION,
OFFICE OF DATA MANAGEMENT AND TELECOMMUNICATIONS,
Washington, D.C., October 23, 1981.

Hon. G. V. (SONNY) MONTGOMERY,
Chairman, Committee on Veterans' Affairs,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I am pleased to submit to the Committee the enclosed responses to the questions forwarded to me in your letter of October 8, 1981.

I am also submitting three additional enclosures: the Office of Data Management and Telecommunications' memorandum of April 20, 1981, the Planning and Program Evaluation memorandum of April 10, 1981, and the Inspector General memorandum of April 10, 1981. These documents are being submitted at the request of Mr. Pickle, who asked during the testimony that we provide copies of internal studies which led to our decision to discontinue efforts to establish a Centralized Development Center. The first two of these enclosures also serve as background information for Question 2, and are further referenced in our response.

Sincerely,

JACK J. SHARKEY,
Assistant Deputy Administrator.

Enclosure.

WRITTEN COMMITTEE QUESTIONS AND ANSWERS

Question 1. What has the VA done to comply with the Appropriations Committee instructions that the VA utilize current, off-the-shelf technology for its patient care computer support?

Answer. The VA has been working on two simultaneous strategies to utilize current, off-the-shelf technology for its patient care computer support.

The first strategy was to produce an RFP to select a contractor who will determine which of the currently operating functional or integrated technologies would be most cost-effective and of maximum value to VA medical centers network. Included in the list of alternatives for this strategy are currently operating VA Medical Center systems as well as private sector systems. Proposals have been

submitted by prospective firms and an evaluation team is currently reviewing them for their technical merits.

The second strategy for implementing the Appropriation Committee's instructions is to compare VA medical systems' functional requirements and specifications that have been developed over the past few years with currently available, commercial turn-key system descriptions and produce a solicitation that will procure integrated hospital systems for demonstration and testing in VA Medical Centers. This solicitation's functional requirements are being reviewed by the users for changes, additions and deletions and then it will be released to industry. The contractor mentioned above, who will be determining technologies that can best meet the VA's hospital ADP needs, will be assisting the VA in preparing evaluation criteria for selecting the integrated hospital systems for demonstration and testing.

The result of this strategy's approach will be the procurement and installation of proven systems in three VA medical facility test sites and evaluate these systems for potential application VA-wide. The emphasis of the first strategy is on examining any available functional (stand-alone) or integrated system, while the second strategy will demonstrate the applicability of commercially available integrated systems over a two-year period. These two strategies are perceived to complement each other over the next two years because they will look critically at what the VA has developed and used in-house and compare those systems with commercial systems, both functional and integrated. The VA medical users have defined what is needed to update their patient care computer support needs and now will be able to apply new resources to obtain much-needed systems.

The Appropriation Committee provided resources to support the installation of automated pharmacy support to the VA Medical Centers and Outpatient Clinics. Currently, budget authority has been provided to extend this support to 21 Medical Districts consisting of 180 medical facilities. The VA will be requesting the authority in future budget requests to provide pharmacy support to the remaining seven Medical Districts thereby encompassing all 220 medical facilities.

Our pharmacy effort has had enormous success to date. We have converted and are now enhancing the VA's pharmacy system (APPLES) that supports our pharmacy facilities in Southern California (Medical District No. 26). The conversion took the outpatient pharmacy system (APPLES) and converted it to Digital Equipment Corporation (DEC) minicomputers from its current Honeywell computer environment. This conversion was completed on schedule in July 1981 and we have installed this system in Medical District No. 17 (Chicago area) to test the system in a live medical environment.

The work on enhancing the automated pharmacy system is progressing and is planned to be competed and certified for implementation by March 1982. These enhancements are adding capabilities for inpatient prescription processing and drug inventory. Planning is currently underway to install the enhanced pharmacy system capabilities (inpatient and inventory) in the Hines Medical Center inpatient pharmacy. This installation is planned for March 1982 and will be a six-month pilot test of the enhanced capabilities. This pilot test will allow user and ADP systems personnel to thoroughly test the functionality of the entire pharmacy system and suggest modifications to make the system more usable from the hospital pharmacy user's viewpoint.

Another project the VA is undertaking to comply with the Appropriations Committee's instructions is the development of an Admissions, Transfers and Discharges, Clinic Scheduling and Clinical Laboratory Reporting (ATDS/L) system on state-of-the-art minicomputers. The primary intent of the ATDS/L project is to develop and implement a prototype for a test of an automated system that could result in improving the direct delivery of medical care to veterans at the hospital level. The ATDS/L system will encompass the same general application areas as are currently being processed on VA computers at several VA Medical Centers. In addition, the proposed test would determine the extent to which such a system could satisfy the information requirements for planning, cost accounting and managerial reports that Medical Center Directors and Central Office policy makers require to manage the VA health care system.

Currently, the ATDS/L system's functional specifications are being reviewed and refined by a joint DM&S VACO and field user committee. After the functional specifications document is final and approved by the user committee, programming of the ATDS/L sysem will follow at the Medical Center Support Center in Hines, Illinois.

Question 2. The September 18, 1981 GAO Report revealed that the VA's Office of Planning and Program Evaluation and the Office of Data Management and Telecommunications provided conflicting cost estimates on the Austin CDC reorganization plan, with the OP&PE saying it was not cost effective on April 10, 1981, and

the ODM&T saying it was on April 20, 1981. How could such discrepancies arise from these two offices? Please provide both Offices' Memorandums for the hearing record.

Answer. As requested, we are providing copies of the memoranda issued by the Office of Program Planning and Evaluation (formerly the Office of Planning and Program Evaluation) on April 10, 1981 and the Office of Data Management and Telecommunications on April 20, 1981 relating to the costs and benefits associated with the establishment of the CDC in Austin, Texas. A review of these memoranda and a comparison of the cost items, included in each office's analysis reveals how the differing conclusions were reached. The main differences between the costs OPP&E and ODM&T attributed to the establishment of the CDC are the result of different assumptions regarding lost productive time associated with the proposed move, programmmer efficiency and training, and numerous applicable one-time cost items. It should be noted that the Office of Program Planning and Evaluation has the Agency mission for cost-benefit analysis and is responsible for an independent verification of all major economic analyses conducted in the VA. Therefore, the OPP&E analysis in conjunction with other inputs was used by the Administrator in making his final decision.

Question 3. You state on Page 8 of your tstimony that GAO recommended that your office establish a formal capacity in your planning process which will consider interdependencies among users. It appears to me that you established the CDC in Austin to provide for the mutual consideration of all VA Departments in ADP planning. How will you promote the recommended planning interface amongst the various planning sites under your present organization?

Answer. The planning process will evolve from a coordinated effort of the systems support personnel, the Data Processing Centers (DPC), and a strengthened Data Management and Telecommunications (DM&T) Planning Staff. Each Service and Staff Director within DM&T will be directed to closely coordinate and develop short- and long-range planning objectives with their respective users. The DPCs will become more involved in the planning cycle through stronger coordination between CO Service and Staff Directors and the DPC Directors. The DM&T Planning Staff is to be strengthened and will reorient its planning procedures. A new planning approach will be taken reflecting long-range (5-year) and short-range (2-year) planning objectives. This requires the definition of organization goals in relation to mission requirements, setting priorities for achiving these goals, and measuring the results through a systematic feedback system. Planning will be developed in coordination with the budget to provide an internal control for recognizing, accepting, and managing changes that occur. To ensure that all interdependencies among users are considered, an ADP review group will review the plans to provide Agency management with objective evaluations and advice concerning the planned development efforts and their multiple user potential.

Question 4. How many employees actually transferred to Austin will be required to transfer to other stations as a result of the Administrator's decision to cancel the CDC plans? Have you determined the costs of these transfers? How much will it cost? Has VA tried to recoup the personnel positions supposedly saved by implementing the CDC concept? How many employees did the VA actually hire for the CDC in Austin, and what will become of these employees? By this, I would like to know if you plan any RIFs.

Answer. None of the employees transferred to Austin will be required to transfer to other stations as a result of the decision to cancel the CDC. The existing workload and anticipated additional workload is sufficient to keep these employees gainfully employed. Accordingly, no costs will be incurred in any transfers.

The VA has made no attempt to recoup the 57 positions which were shown as savings attributable to the establishment of the CDC. We expect to realize the savings of the 57 positions by realignment/reassignment of our resources in concert with our centers of expertise concept and through increased operating deficiencies. While plans are not firm at this time, each element of DM&T, Central Office and the Data Processing Centers, will contribute toward the savings.

The VA had a net increase of 36 employees as a result of the establishment of the Centralized Development Center. The increase was attained by intra-agency transfers, inter-agency transfers, and new hires from private industry.

There will not be a RIF of these employees. As previously mentioned the existing workload combined with the planned additional workload is sufficient to keep these employees gainfully employed.

Question 5. Are you currently planning any closings or consolidations of Data Processing Centers?

Answer. We do not have any current plans for the closing or consolidation of any of the Data Processing Centers. However, reducing the number of Data Processing

Centers by consolidating workloads remains a potential option for improving efficient use of ADP resources.

Question 6. What was the cost of the Target System and have you achieved the anticipated savings from it?

Answer. Through August 3, 1981, when the Target Cost Report was discontinued, the total cost of the Target System was $98,600,314. By September 1980, the Target development effort was largely completed. Current expenditures are primarily for ongoing operations as well as some systems requirements.

As a result of Target implementation, the VA has experienced a savings of 1,414 personnel.

Question 7. At the bottom of Page 3 of your statement, you make rather dire predictions that if the Target system is not enhanced that the "system could become practically unworkable by the user on a nationwide basis". Does this mean that a possibility is present that veterans would not get Compensation, Pension, or GI Bill checks?

Answer. The degradation of Target online system response time will not directly delay the issuance of Compensation, Pension, and Education checks. The payment system is still processed in a batch mode at the Hines DPC, and its frequency of operational cycles is not dependent on the online system response time. Existing claim accounts would continue to be processed by the payment system in event of the unavailability of the online system. However, the addition of projected legislation and desired enhancements could cause new accounts or amended claims to be subject to delay resulting from the unavailability or slow response time of a degradated online system.

Question 8. Did VA's long-range plan, which resulted in Target, contemplate that it would be in need of enhancement so soon?

Answer. Much of the growth in online workloads of Target was the result of Legislative actions that could not be anticipated in the ADP planning process for Target. Most notably has been the Legislation for Improved Pension to support awards for Public Law 95–588 and Chapter 32 award processing. These are two recent Legislative areas that have had a significant impact on the online workload.

As a result of the original solicitation document for Target, it was estimated that a communications network of four Regional Data Processing Centers (RDPCs) was needed, although it was ultimately determined that three RDPCs could satisfy VA requirements. However, with unanticipated expansion, we now find it necessary to exercise the original contractual option for additional equipment.

Question 9. What are the kinds of computer applications that you would put on Target if you had sufficient capacity?

Answer. Among the computer applications being considered for inclusion in Target are the total redesign and modernization of the ADP support for the VA Insurance programs, the placement of Target terminals to provide an inquiry capability to the Beneficiary Identification and Locator System (BIRLS) in the VA Medical Centers and the integration of various data bases in ADP support for the Loan Guaranty function.

In addition to those new areas which are being considered for addition to the exising network, there are numerous enhancements, refinements and extensions to the existing functionality for the Compensation, Pension and Education programs under development. We believe these additions are the most viable tool to help the Department of Veterans Benefits to maintain their excellent record in the delivery of quality service to our Nation's veteran population.

Question 10. What is the general feeling—if you know—of your principal users? Are they generally satisfied with the services you render?

Answer. Generally speaking, our users are satisfied with the service we now render. I believe that most of our users realize we are doing all we can with existing resources to satisfy their requirements.

Question 11. Do you have any good estimate of what it is going to actually cost to have the kind of automation you need in the VA hospital system to come up to par with the private sector?

Answer. It is very difficult to estimate what it would actually cost to have the kind of automation needed in the VA hospital system to bring it up to par with the private sector. The Funtional Integrated Hospital System (FIHS) might be cited as an example of the scope of the problem.

For the FIHS project the VA is planning to install, test and demonstrate three commerically available integrated hospital information systems as well as functional systems as well as functional systems. These systems are to include the subsystems of admissions/transfers/discharges, patient registration and location clinic scheduling, pharmacy, clinical laboratory and possibly others such as nursing, dietetics, radiology, etc. The tests will enable the VA to evaluate various systems and

to develop the hospital automation solution for the VA. Until such time that functional and integrated hospital systems are fully implemented, tested, demonstrated and accepted, it is difficult to give an accurate estimate of what it will cost to achieve an automated solution that will bring the VA up to par with the private sector.

Many decisions remain to be made as to what types of systems will be procured, how these systems will be operated and maintained, what portion of the system would be 24-hour, what portion batch, etc. Answers to these questions must be addressed first before any realistic cost estimate can be made about the total cost to automate the VA hospital system.

Question 12. Do you have any specific plans for greater use of minicomputers in the medical program?

Answer. Our automated pharmacy effort which has been funded for Fiscal Years 1981 and 1982 is the top medical ADP priority within the Department of Medicine and Surgery and this project which will use minicomputers to extend automated pharmacy support to 21 Medical Districts consisting of 180 facilities and has had enormous success to date. We have converted and are enhancing the VA's pharmacy system (APPLES) that supports our pharmacy facilities in Southern California (Medical District No. 26). The conversion took the outpatient pharamacy system (APPLES) and converted it to Digital Equipment Corporation (DEC) minicomputers from its current Honeywell computer environment. This conversion was completed on schedule in July 1981 and we have proceeded to install the converted outpatient system in Medical District No. 17 (Chicago area) to test the system in a live medical environment.

The enhancements to the automated pharmacy system are progressing and are planned to be completed and certified for implementation by March 1982. These enhancements are adding capabilities for inpatient prescription processing and drug inventory. Planning is currently underway to install the enhanced pharmacy system capabilities (inpatient and inventory) in the Hines Medical Center inpatient pharmacy for an approximate six-month pilot test of the enhanced capabilities. One the functionality of the entire enhanced pharmacy system is thoroughly tested and modified, we intend to extend automated pharmacy support to the currently approved 21 additional Medical Districts consisting of 180 Medical Centers and Outpatient Clinics. Our plans are to begin implementing the automated pharmacy system on a nationwide basis during Fiscal Years 1983, 1984, and 1985, subject to the availability of funds.

In addition to using minicomputers for the automated pharmacy project, the VA will be using a minicomputer to develop and implement a prototype for a test of an automated admissions/transfer/discharges, scheduling and clinical laboratory reporting (ATDS/L) system. This test system will encompass the general applications currently being processed on VA computers at several VA Medical Centers. This test will also determine the extent that such a system could satisfy the information requirements for planning, cost accounting and managerial reports that Medical Center Directors and Central Office policy makers require to manage the VA health care system.

The VA has a Medical District based automated electrocardiogram (ECG) system operational in Medical District No. 2 (upstate New York). An evaluation of this system was conducted and the Chief Medical Director approved using three DEC PDP 11/34 minicomputers for use in district based ECG systems. During the first quarter of this Fiscal Year an RFP (Request for Proposal) is being advertised for off-the-shelf ECG systems to run on the existing PDP 11/34 hardware. The ECG systems will service the following Medical Districts: Medical District No. 20 with the host computer (DEC PDP 11/34) at the Dallas, Texas Medical No. 6 with the host computer (DEC PDP 11/34) at the Washington, D.C. Medical Center, Medical District Center, and Medical District No. 3 with the host computer (DEC PDP 11/60) at the Brooklyn, New York Medical Center. These three Districts will service 27 facilities with 24-hour, seven days a week ECG service.

[Memorandum]

VETERANS ADMINISTRATION,
April 10, 1981.

To: Acting Administrator (00).
Subject: Establishment and Staffing of CDC.

1. As a result of meetings with ODM&T and P&PE and information provided by them, we have been able to more clearly focus on the concerns which we brought to your attention by our memorandum of 4/3/81. This information has enabled us to clarify certain points as well as correct certain misunderstandings. The explanations

and information provided to us in these meetings have eliminated certain aspects of our concerns. There are, however, remaining serious concerns that we still have which are set forth below, along with our understanding of ODM&T's position. These concerns are:

a. The FTE savings from moving the CP&E development to Austin will result in an FTE savings of only 14 rather than the 32 as previously indicated. Six of these 14 are administrative and overhead savings which could be obtained without moving CP&E to Austin.

b. The cost benefit study done by P&PE shows that under all three of the cases analyzed (the best, the most likely, and the worse), a breakeven point will not be achieved by the proposed move from Hines to Austin.

c. There is a definite possibility that a significant number of the people remaining at Hines will leave. This would have a detrimental effect on the CP&E batch system development and maintenance.

d. If a significant number of the remaining people at Hines left, there would be a substantial impact on TARGET Central System (TCS) redesign.

2. FTE savings from movements of CP&E from Hines to Austin.

Background: Of the 57 FTE savings projected by ODM&T last August which would result from the CDC, 32 were attributed to movement of CP&E development from Hines to Austin. The present projections of ODM&T are that this move would result in a net savings of only 14 FTE. Of the 14, ODM&T estimated that 6 will result from administrative and overhead savings from combining two development groups (SDD I and SDD II). In our opinion these administrative and overhead savings could be achieved whether at Hines or Austin. Consequently, we conclude that the real savings from moving CP&E to Austin is only going to be 8 FTE.

3. The above 14 FTE savings figure is based on ODM&T's estimate. It should be noted that this estimate was not based on increased efficiency and effectiveness resulting from the CDC as we previously thought. ODM&T indicates that the savings will result from better balancing to eliminate dead time, although they are not able to translate the elimination of dead time into FTE savings. ODM&T's estimate is, as we understand it, calculated by deducting the number of people they think they will need in Austin for CP&E development (88) from the number of people presently doing that work at Hines (102).

4. We question whether there will be any savings at all from moving CP&E to Austin. Because of the use of different types of equipment and different versions of computer language, we think that only a small number of people will be shifting back and forth between those devoted to CP&E and those devoted to everything else.

5. *ODM&T's position:* We understand ODM&T's response to these concerns is that the benefits from moving CP&E to Austin rather than leaving it at Hines cannot be measured by the 14 FTE savings alone. Other benefits that they have indicated are there would be more flexibility for the future if CP&E is moved; they would better be able to control the flow of work; and they would be better able to adjust to the agency priorities for work to be done.

6. Our response to ODM&T's position is that these concerns can be better met by improved management techniques and do not appear to be directly related to eliminating dead time which would result from the establishment of a CDC.

COST BENEFIT STUDY

7. CP&E's cost benefit study indicates that the proposed move is not effective under even their best case analysis. Consequently, the proposed move will result in a loss of $1.4 million for the 14 FTE savings. If the FTE savings of 8 were used, the cost-benefit study would indicate a greater loss.

ASSESSMENT OF CONSEQUENCES TO DVB IN ON-GOING C.P. & E. OPERATIONS

8. *Background:* The CP&E batch system is not formally documented. The documentation is primarily in the heads of those people at Hines. ODM&T estimates that it takes 2–2½ years to learn this system. ODM&T's present intention is not to move to Austin the development and maintenance performed in the CP&E batch system. Those people left behind will be working on modifying the current batch system as required by legislative changes and DVB and trouble shooting to keep the system operational. The TCS redesign according to ODM&T is now estimated to be completed in 1986 rather than 1983.

9. *Risk:* If a significant number of people remaining at Hines in the CP&E development/maintenance group leave before there has been sufficient implementation of the TCS redesign, there is a risk that the VA may not be able to keep the CP&E batch system operational. The consequences of this risk could be severe and

devastating; VA may not be able to get the benefit checks out and/or may not be able to implement legislative changes.

10. *Assessement of Risks:* We have no hard informaiton on who of the CP&E batch employees would stay and leave if the redesign work was moved from Hines. In our opinion if all that is left at Hines is maintenance, job satisfaction will be more likely to decrease and turnover increase.

In addition, it is our opinion that people not near retirement will be more likely to leave in the next two years rather than stay with VA. Our understanding is that of the 45 people remaining in the CP&E batch group, approximately half are under the age of 40 and approximately 9 are eligible for retirement in the next 3 years. Therefore a movement of CP&E from Hines to Austin at this time could, in our opinion, accelerate the turnover of the younger group.

11. If 50 percent of the remaining CP&E development maintenance people leave within the next two years, VA would be running a high risk of system failure. If 25 percent leave within the next two years, VA would be running a moderate risk of system failure.

12. *ODM&T's position:* As we understand ODM&T's response, they disagree with our conclusion that a significant number of CP&E people at Hines will leave within the next two years. They believe these people will stay at their jobs until the new TCS is in place (which could be up to five years). In ODM&T's opinion, those people would look for new jobs at that time and possibly be offered other opportunities at Hines by VA. ODM&T also indicate that if there are problems with the operations of the CP&E batch system, people from Central Office or Austin could be detailed to prevent any systems breakdown.

13. Our response to ODM&T's position is that we believe that ODM&T's approach would be costly and cannot be perpetuated from any length of time.

ADVERSE IMPACT ON TCS REDESIGN

14. If a significant number of the Hines CP&E development/maintenance people leave within the next two years, we believe there will be a substantial impact on the TCS redesign.

15. *ODM&T's position:* ODM&T's position is that the functional specifications for the redesign are properly the responsibility of the user, i.e., DVB and other ODM&T Central Office systems analysts. We agree.

16. Our response is that DVB has indicated that they do not have sufficient resources and are hard pressed to provide detailed functional specifications for TCS redesign in a timely fashion. Implementation of SDM/70 will not change this. Therefore, we see a requirement for the use of Hines CP&E batch system personnel in TCS redesign to aid in the provision of detailed functional specification. If they left VA the information would not be so readily available. Therefore, there could be a substantial delay in addition to ODM&T's 2—3 months delay based on the movement of equipment.

Recommendation: The proposed move of CP&E development/maintenance personnel from Hines to Austin will yield only limited FTE savings from further implementation of the CDC concept at this time; is not cost beneficial. Based on these factors, the proposed move it not justified.

MORRIS B. SILVERSTEIN,
Deputy Inspector General.

VETERANS ADMINISTRATION,
April 20, 1981.

[Memorandum]

To: Acting Administrator (00)
Subject: Transfer of CP&E Development to the Centralized Development Center (CDC

1. Since our meeting last week concerning the Centralized Development Center, I have carefully reviewed the separate memoranda to your from the Assistant Administrator for Planning and Program Evaluation (P&PE) and the Deputy Inspector General (IG). I very much regret that a consensus has not been reached on this matter, but I feel that the issues and concerns raised in the memoranda lack sufficient accuracy or seriousness to warrant any further delay in our plans to relocate development activities to the CDC, and especially any futher delay in the transfer of Compensation, Pension and Education (CP&E) develpment activities. In my judgment, a delay would only serve to jeopardize our potential for cost savings and improved service, while offering no meaningful solution to the problems for

which the Centralized Development Center was proposed and approved in order to correct.

2. From my review of the memoranda, I understand that the only major areas of contention remaining are assessments of costs and risk. I conclude that the cost analysis position taken by P&PE is based primarly upon significant erroneous and misleading calculations and assumptions. In the risk assessment of IG, I find the viewpoint expressed to rely heavily on P&PE's questioned cost analysis. Aside from that, the IG's assessment of risk appears to be principally based on sociological speculation about future job satisfaction of these employees not affected by the transfer of function plan. This question was not raised until after a clarification to the IG's prepresentatives that the function in question was not to be included in the transfer.

3. My staff has made an analysis of P&PE's brief study of costs and benefits. It is contained in Attachment 1. Contrary to P&PE's portrayal, we find the economic considerations favorable to a decision to proceed with the transfer of functions even when the transfer of CP&E development is considered separately (as it was in this case) and without regard to rather substantial savings to be achieved in other areas. In their analysis P&PE failed to address a number of cost factors associated with the alternative of taking no action to transfer CP&E development from Hines. The total costs for this alternative over a four year period amount to a total of $143,933,787, as opposed to the four year cost of moving the activities to the CDC of $13,976,818. These figures include all employee salaries for the four year period as well as costs associated with chronic retraining needs and diminished efficiency due to the high average personnel turnover rate at Hines. In brief, we find the P&PE discounted cost-benefit ratio of 0.87 to 1.00 to understate the true savings to be realized and to overstate the estimated cost of transfer as well. We estimate the discounted cost-benefit ratio conservatively to be 1.00 to 1.04.

4. The Inspector General's analysis of risks deals with anxiety associated with the loss of experienced personnel at Hines DPC and some rather non-specific aprehensions about the impact of the transfer on the current CP&E batch system and the redesign of that system. Both areas of concern are in my judgment without material substance. ODM&T studies and plans do not include the transfer of maintenance or legislative changes to the currently processing CP&E systems. It has been determined prudent both from the technical and managerial points of view that this function should remain at Hines. It should be noted that the problem of losing personnel devoted to CP&E batch system maintenance is a management problem which must be dealt with whether or not the transfer of CP&E development functions is accomplished. As the phases of the Target Central System Redesign are installed to replace portions of the current system, the staffing at Hines for maintenance of the batch system will be reduced in any case. It should also be noted that IG's concerns about the loss of personnel have not addressed the quite serious and continuing problem of personnel turnover at Hines, which has a consistent and deterimental effect on capabilities for maintaining CP&E support. We have stated on many occasions that this area of operations has been and is a critical priority and that we will maintain service to DVB and the veteran population. This includes any required maintenance or legislative changes. As to the assertion that the transfer will adversely impact the Target Central System Redesign, I can only restate my understanding that IG's concerns stem from adherence to an outmoded, inefficient and potentially damaging development methodology which depends for its success upon a very limited number of key applications programmers for the functional knowledge required to describe system functionality. The responsibility for determining what an ADP system is to accomplish quite properly belongs with the user organization, who is ultimately accountable for the accuracy and legailty of the processing results. We have been severely and properly criticized in the past for the assumption of user responsibilities by applications programmers. This has inevitably created the very problems of inadequate documentation, confusion and lack of knowledge which have inhibited adequate functional and technical system design, and have contriubuted to poor utilization and balance or resources. This fundamentally is what we are committed to correct. I fail to see any logic in maintaining the status quo which has forced us into this situation.

5. At this point, the obvious costs associated with delaying or not moving the CP&E development activity should be clearly stated. There are, in brief, tangible and intangible costs which should be given serious consideration in determining the final outcome on this matter. There are tangible costs associated with the required GOE funds to retain those FTE who would otherwise be saved incident to the transfer. There would also be costs associated with a compelling requirement to attempt to increase FTE at Hines, if that is the alternative, to support increased DVB requirements. We have already discussed the difficulties in recruiting qualified

personnel at Hines. Failure to increase and retain these personnel would result in further delays in development schedules. There would also be increased costs for interim and permanent space either at Hines or Austin, as well as the potential for additional costs to the redesign effort for the Insurance System, either for equipment to support the development at the CDC or to establish an organization at Hines for this effort.

6. A number of other factors should also be considered in the final decision. Critical among these are the disruptive effect upon personnel because of any prolonged uncertainty and the problems associated with delays in organizing for maximum ADP responsiveness should DVB be required to reduce FTE to current fiscal year 1982 budget levels. In our space negotiations with the General Services Administration, we are aware a delay would affect not only ODM&T plans, but the space planning of the Controller for full CALM operations as well.

7. I have addressed many times the benefits which the CDC concept offers for ADP development activities, and I am prepared to discuss them again whenever necessary. I have also stated and am fully prepared to discuss further my conviction that any further delay will only contribute to the already threatening situation with respect to both the DVB and the ODM&T fiscal year 1982 budget. At this point we have limited alternatives upon which to finally render a decision. If we delay the decision to transfer CP&E development until completion of the GAO study or at some other point in the future, we certainly stand to lose the timely potential savings and benefits associated with the transfer, and we will find ourselves in a difficult posture to move forward in the foreseeable future. If it is decided to leave CP&E development at Hines, we will also lose the potential savings and will also have done nothing to improve the problems we now face in that area. In my judgement, having taken into account the potential risks inherent in any management decision of this type, the only viable alternative is to proceed with the transfer of CP&E development to the CDC as soon as possible, and I request your approval to do so in fiscal year 1981, pending the availability of funds.

W. R. MARTIN, *Assistant Administrator.*

Attachment.

[Attachment 1]

ECONOMIC CONSIDERATION OF MOVING C.P. & E. TO AUSTIN—4-YEAR COST-BENEFIT ANALYSIS

Cost of Move: $13,976,818
Benefits of Move: $14,933,787
Ratio: 1 to 1.04 (Discounted); 1 to 1.07 (Undiscounted).

BREAK EVEN ANALYSIS

Year	Costs	Cumulative costs	Benefits	Cumulative benefits
Base	$990,091	$990,091		
1	3,676,199	4,666,290	3,656,256	$3,656,256
2	3,236,450	7,902,740	3,759,177	7,415,433
3[1]	3,037,039	10,939,779	3,759,177	11,174,610
4	3,037,039	13,976,818	3,759,177	4,933,787

[1] Break-even attained in year 3.

Analysis of Annual Recurring Cost at Each Site (Year 3 and All Subsequent Years)

Annual cost to remain at Hines	$3,759,177
Annual cost to operate at Austin	3,037,039
Recurring savings	722,138

Four-Year Cost of CP&E Remaining at Hines Supporting Schedule

Employee salary, including fringe benefits (schedule A)	$13,122,504
Training because of employee turnover (schedule B)	216,000
Diminished programmer efficiency because of employee turnover (schedule B)	1,595,283
Total	14,933,787

Note.—Additional costs associated with not relocating CP&E Development to Austin would include one-time costs of $215,000 for purchase of Honeywell timesharing and testing capabilities plus $5,000 a month recurring costs for Honeywell-oriented non-CP&E application development. Any move of non-CP&E development to Hines would include the establishment costs of space, etc., incurred in the establishment of an entirely new ogranization. These costs were not included in our estimates, but they would improve the benefit-cost ratio in favor of the CDC is included.

SUPPORTING SCHEDULE A

	Hines DPC	CDC
CP & D staff requirements	102	88
Cost per staff year	$32,163	32,163
Number of years	×4	×4
Total staff cost	$13,122,504	$11,321,376

Note.—No savings are counted for the estimated reductions in the Office of the Director and Administrative Division. These additional savings would improve the benefit-cost ratio in favor of the CDC.

SUPPORTING SCHEDULE B

DIMINISHED PROGRAMMER EFFICIENCY DUE TO EMPLOYEE TURNOVER

Assumptions

New Programmer.—one who works at 50% efficiency of the rate of an experienced programmer during the first year of employment.

Intermediate Programmer.—One who works at 80% efficiency of the rate of an experienced programmer during the second year of employment.

Fully Experienced.—After the second year efficiency for a programmer is assumed at 100 percent for purposes of calculation.

Turnover rates (based on 1977–80 figures): Hines 19.4 percent; Austin 4.4 percent.

Based on these data, we can project the programmer mix by category and arrive at the steady state programmer mix at each site:

HINES

Year	Fully experienced	Intermediate	New	Lost productivity [1]
Base	[2] 102			
1	82		20	$321,630
2 and beyond (steady state)	66	16	20	424,552

[1] Assumes diminished efficiency at salary rates used in analysis.
[2] Assumes full efficiency for all programmers at Hines, even though some programmers should be classified as intermediate.

AUSTIN

Year	Fully experienced	Intermediate	New	Lost Productivity [1]
1	51		37	$595,016
2	49	35	4	289,467
3 (steady state)	80	4	4	90,056

[1] Assumes diminished efficiency at salary rates used in analysis.

COST OF TRAINING

Using $2,700 training cost per new individual, Austin costs would be $100,000 in the first year and $10,800 in all subsequent years. Hines cost would be $54,000 ever year.

COST OF MOVING C.P. & E. TO AUSTIN

[Adjusted P. & P.E. Figures]

Fiscal year	1981	1982	1983	1984	1985	Totals
Proposed system						
1-Time costs:						
Personnel transfer	561,000					
Severance pay	218,790					
Training		100,000				
Personnel for planning and managing move [1]						
Travel [2]						
Move from temporary to permanent space [3]						
Equipment move and reinstallation [4]	65,912					
Improvement to temporary space [5]						
Temporary A/C [6]	7,000					
Temporary power	15,000					
Miscellaneous	27,739					
Personnel-slippage 3 weeks [7]	94,650					
Permanent A/C and power [8]		45,000				
Total 1-time costs	990,091	145,000				1,135,081
Recurring costs:						
Personnel (88 FTE)		2,830,344	2,830,344	2,830,344	2,830,344	11,321,376
SLUC [9]		74,963	74,963	74,963	74,963	299,852
Telecommunications [10]		30,876	30,876	30,876	30,876	123,504
Travel and miscellaneous shipments [11]						
Diminished programmer efficiency [12]		595,016	289,467	90,056	90,056	1,064,595
Training new programmers [13]			10,800	10,800	10,800	32,400
Total recurring costs		3,531,199	3,236,450	3,037,039	3,037,039	12,841,737
Total costs	990,991	3,676,199	3,236,450	3,037,039	3,037,039	13,976,818
Present system costs						
Recurring personnel costs (102 FTE)		3,280,626	3,280,626	3,280,626	3,280,626	13,122,504
Diminished programmer efficiency [12]		321,630	424,551	424,551	424,551	1,595,283
Training of new programmers [13]		54,000	54,000	54,000	54,000	216,000
Total present system costs		3,656,256	3,759,177	3,759,177	3,759,177	14,933,787

[1] No added cost for planning and managing move.
[2] Travel must be incurred regardless of C.P. & E. location.
[3] No such move intended.
[4] Reduced by maintenance cost avoided while equipment in transit.
[5] Cost must be paid by lessor.
[6] Temporary A/C currently required; $7,000 chargeable to Honeywell.
[7] Liberal estimate of 3 weeks non-productivity during move.
[8] Portion that could be prorated to Honeywell.
[9] $6.31 sq. ft. × 135 sq. ft./employee × 88 employees (p. VI–13 August 1, 1980 Management Study). Computer room space not applicable.
[10] Per C.P. & E. plan.
[11] Invalid cost. These are all incurred in year 1.
[12] 37 new hires are required because of Hines employees terminating rather than transferring to Austin. Estimated cost for new hires to attain efficiency of experienced programmers. Used journeyman rate for all cost and benefit calculations.
[13] Schedule B above shows how costs for training were developed.

DISCOUNTED BENEFITS AND COST

Year	Cost	Benefit	Discount factor	Cost	Benefit
1	$990,091		.909	$899,992	
2	3,676,199	$3,656,255	.826	3,036,540	$3,020,067
3	3,236,450	3,759,177	.751	2,430,574	2,823,142
4	3,037,039	3,759,177	.683	2,074,298	2,567,518
5	3,037,039	3,759,177	.621	1,886,001	2,334,449
Totals	13,976,818	14,933,787		10,327,405	10,745,176

Note.—Discounted benefit-cost ratio = 1.04; undiscounted benefit-cost ratio = 1.07.

[Memorandum]

VETERANS ADMINISTRATION,
April 10, 1981.

To: Acting Administrator (00).
Subject: Centralized Development Center (CDC).

1. According to your request at the end of our meeting of April 3, 1981, my staff and I have met with ODM&T and the IG concerning the proposed actions relative to the CDC. ODM&T has been very helpful in providing a detailed amount of information. As we agreed, certain points of concern were clarified with additional data and some of our incorrect interpretations were eliminated. This was a very helpful process for all participants and it served to clarify the issues that you should be aware of in making any decisions.

2. The primary thrust of our previous concerns related to making a major, controversial decision with a lack of data and experience as a basis for that decision. As a result of our discussions with ODM&T and the more thorough documentation they have provided, we have prepared an analysis of the costs and benefits associated with the movement of CP&E development to the CDC. This is an analysis which I believe is essential to understanding the decision impact and also is one which has been requested by the Senate Veterans Affairs Committee and other concerned sources. To assist your review, we have prepared an analysis of the probable costs and benefits as well as the "best" possible and "worst" possible cases. In no instance would this decision be cost beneficial.

3. In light of this analysis, I would continue to counsel a more prudent course of action, namely, one which would examine the impact of operating the CDC with the 166 Austin personnel and assigning the CDC all new development activity other than CP&E. This would enable an observation of the impact on productivity at Austin (presently 64.5%) and the ability to manage work flow. This is a normal course of action in a major change—namely to "pilot" the effort to gain experience. I would couple this with a management review at Hines DPC to isolate those present management factors which may be contributing toward problems there—including turnover. I would make members of my staff available to ODM&T to assist in this review. I believe this course of action which could be only a matter of a few months would put this agency in a better position to assess this decision and its magnitude and to defend any action taken. It would further allow for a positive endorsement and a course of direction by the new VA leadership which would have to contend with any adverse circumstances. It would also place this decision downstream of a GAO report which may result in adverse findings and a recommendation to defer all further action.

4. In a climate of severely limited resources, I believe a more thorough review and analysis is warranted. Our first priority is to close the St. Paul DPC which will result in an expenditure of approximately $1.53 million. Our estimate of the one time costs associated with CP&E moving to the CDC is $2.05 million. It is my present understanding that funding is not available for the St. Paul closure. Before a final decision is made, the question of funding availability should also be resolved. This will not occur until the end of April. Otherwise, adverse effects could be expected to occur in other priorities such as the establishment of the pharmacy system.

5. In summary, after very frank and informative discussion with ODM&T, two concerns remain: the decision would not be cost beneficial; the decision lacks an assessment of a "pilot" CDC experience which could lead to a more informed position. The funding question and associated impacts would also need to be resolved. My recommendation is to defer this decision for a minimum of 90 days. Such a decision would still allow for any savings to be realized prior to the beginning of fiscal year 1982.

RAYMOND S. BLUNT, *Assistant Administrator.*

Attachment.

ANALYSIS OF COSTS AND BENEFITS—RELOCATION OF C.P. & E. DEVELOPMENT

The Office of Planning and Program Evaluation has prepared the following analysis of the costs and benefits associated with the proposed transfer of the CP&E development function to the Austin, Texas Centralized Development Center (CDC). As such, this report is intended to be considered along with the possible intangible benefits and assoicated risks. As ODM&T has stated the transfer of the CP&E function is the only major current development activity not already transferred to the CDC. Therefore, the decision concerning the CP&E transfer is the only real

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issue remaining in the establishment of the CDC. The proposal would involve the transfer of functions of 102 positions as well as the relocation of the computer equipment that currently supports the programming activities.

Our analysis is based upon information contained in ODM&T's Management Study of the Automated Data Processing Centralized Development/Maintenance Center dated August 1980, ODM&T's March 1981 implementation plan intitled, "A Study Concerning Relocation of CP&E Programming Activities." ODM&T's memorandum of April 8, 1981 to P&PE and the Inspector General, as well as information provided by the Office of the Controller and ODM&T and estimates of relevant costs. The following is a description of the costs and benefits of the proposed relocation that are considered to be the most likely. A sensitivity analysis then describes what are considered the best possible case and the worst case so that the range of possible results is understood.

ONE-TIME COSTS

The one-time costs required to relocate the CP&E development activity from the Hines DPC to the Austin CDC are expected to be $2,054,027. These costs will occur during the balance of fiscal year 1981 and fiscal year 1982. Table 1 provides a breakdown of these costs. They include $561,000 for transfer of personnel and $218,790 for severance pay for those who elect not to transfer. The transfer cost was calculated based on an estimated 51 people electing to transfer at $11,000 each. The severance pay assumes that 25 people will find other federal employment and 26 people will receive an average of $8,145 each. Both of these estimates were made by ODM&T.

The training required for those who transfer and to make the estimated 37 new employees fully qualified is estimated by ODM&T to cost $100,000. Especially critical and costly will be the training required for system's programmers. Some training, mostly inhouse, will be required to train Honeywell programmers on IBM programming. The cost for plannning and managing the relocation is estimated to be $25,000 and the cost of travel in addition to that required to relocate the 51 people is estimated at $25,000 of fiscal year 1981 and for fiscal year 1982. An estimated $70,000 will be required to move from the temporary space to permanent quarters. This estimate used the Honeywell quote of $89,912 for the shipment of equipment and furniture from Hines to Austin as a guide. An estimated $50,000 will be required as improvements to the temporary space for such normal things as furniture, carpet, dividers, etc.

A cost of $64,000 is estimated by ODM&T for temporary air conditioning and power supply for the computer equipment. $27,739 will be needed for other miscellaneous site preparation work.

ODM&T has estimated that the relocation of people and equipment will result in a slippage of at least two to three months in development projects. During this period the staff salaries will continue but productive work will be lost. The personnel cost of a three-month slippage would be $707,586 and would be a one-time of the relocation.

The final one-time cost is a portion of the cost of the upgrade of the air conditioning and electrical power supply at the Austin DPC. The total cost of this upgrade is estimated by ODM&T at $450,000. Twenty percent of this cost ($90,000) is included in the one-time cost of relocating the CP&E development activity since the Honeywell computer will be one of five large computers at Austin.

The one-time costs of the CP&E development activity relocation would thus be $1,769,027 in fiscal year 1981 and $285,000 in fiscal year 1982 for a total cost of $2,954,027.

RECURRING COSTS

The recurring costs of the relocated CP&E development activity would be an estimated $12,530,456 over the four-year period fiscal year 1982–1985. The bulk of this cost will be the salaries and fringe benefits for the staff of 88 FTE. This cost will be $2,830,344 annually and include 26 percent for fringe benefits as prescribed by OMB. The Standard Level User Charge (SLUC) of $169,770 annually was calculated based on space for 88 FTE with appropriate space for computer equipment, storage, executive offices and parking. The estimated cost for telecommunications of $80,000 in fiscal year 1982 and $50,000 each succeeding year is based on budget estimates by ODM&T as are the estimated costs for travel and miscellaneous shipment of $150,000 in fiscal year 1982 and $50,000 in each succeeding year. Thus, the recurring costs are estimated as $3,230,114 for fiscal year 1982 and $3,100,114 each succeeding year for a total of $12,530,456.

TOTAL COSTS

The total costs of the proposal are estimated as $14,584,483. This consists of $2,054,027 in one-time costs and $12,530,456 in recurring costs.

SAVINGS

The gross savings to be realized from the relocation will result from eliminating the salary costs of the current staff of 102. This is $3,280,626 annually and $13,122,504 during the period fiscal year 1982–1985. The result is net savings of 14 FTE. However, this savings does not offset the cost of $14,584,483 and results in a loss of $1,461,979.

DISCOUNTED COSTS AND BENEFITS

The proposal will result in a present value net loss of $1,430,780 and a benefit to cost ratio of 0.87 to 1.00. Thus, the VA would lose 13¢ for each dollar spent. Table 2 provides a breakdown of the discounted costs and benefits.

SENSITIVITY ANALYSIS

As mentioned previously, in addition to calculating the costs and benefits for the circumstances most likely to occur we have also conducted a sensitivity analysis examing the "best" and "worst" cases. This additional information will allow the decisionmaker to have the broadest range of possibilities before him when deciding if the transfer of CP&E should take place.

The "best" case meaning the one in which the least costs will be incurred has reduced one-time costs projected for lost time associated with the move and no costs for permanent air conditioning and power requirements. Costs associated with the move are reduced from $707,586 (a three-month slippage) to $94,500 (a three-week slippage). This reduced cost is the minimum expected as presented by Honeywell in their letter of March 10, 1981 (Attachment H to ODM&T's March 1981 Implementation Plan). For this case, no costs associated with ODM&T's estimate of $450,000 for permanent air conditioning and power were attributed to the relocation of the CP&E equipment.

These adjustments for slippage, and power and air conditioning requirements reduces the one-time costs by $523,086. Consequently, the cost-benefit ratio is raised from 0.87 to 0.92 for the "best" case.

The "worst" case situation, meaning the highest reasonable costs are incurred, shows adjusted costs in seven categories: five one-time and two recurring. For this situation it was assumed 75 people chose to move as opposed to 51 and of the remaining 27 FTE, 14 leave the government. This results in increased personnel transfer costs of $264,000 and decreased severance pay of $100,980. Training costs are estimated at $200,000, an increase of $100,000. ODM&T's shopping list of possible training courses costing $286,640 was used as a guide for this estimate. The personnel costs associated with project slippage are increased by $707,586 based upon a six-month delay. Additionally, the Datanet processor removed from Hines is assumed to be replaced at a cost of $150,000 based upon the acquisition cost in 1980. These adjustments in the one-time costs result in an increase of $1,120,606.

In addition to the foregoing, for the "worst" situation it is assumed that ODM&T's estimate of FTE saved cannot be fully realized and that one-half of the estimated 14 FTE or 7 FTE is saved. This results in increased recurring costs for personnel and space. Based upon a personnel cost of $32,167 per FTE the recurring personnel costs increase $225,141 and using the same SLUC rates as previously used, the recurring SLUC costs increase by $9,161.

The net result of these adjustments for the "worst" case reduces the cost-benefit ratio from 0.87 to 0.72.

BREAK-EVEN ANALYSIS

All three of the possible cases analyzed (the best, the most likely, and the worst) result in negative cost-benefit ratios. Therefore, a break-even point is not achieved.

TABLE 1.—LIFE CYCLE COSTS

	1981	1982	1983	1984	1985	Totals
Present system						
Recurring personnel (102 FTE)		3,280,626	3,2802,626	3,280,626	3,280,626	13,122,504

TABLE 1.—LIFE CYCLE COSTS—Continued

	1981	1982	1983	1984	1985	Totals
Proposed system						
One-time costs:						
Personnel transfer	561,000					
Severance pay	218,790					
Training		100,000				
Personnel for planning and managing move	25,000					
Travel	25,000	25,000				
Move from temporary to permanent space		70,000				
Equipment move and reinstallation	89,912					
Improvement to temporary space	50,000					
Temporary A/C	25,000					
Temporary power	39,000					
Miscellaneous	27,739					
Personnel—slippage 3 months	707,586					
Permanent A/C and power		90,000				
Total one-time costs	1,769,027	285,000				2,054,027
Recurring costs:						
Personnel (88 FTE)		2,830,344	2,830,344	2,830,344	2,830,344	
SLUC		169,770	169,770	169,770	169,770	
Telecommunications		80,000	50,000	50,000	50,000	
Travel and miscellaneous shipments		150,000	50,000	50,000	50,000	
Total recurring costs		3,230,114	3,100,114	3,100,114	3,100,114	12,530,456
Total costs	1,769,027	3,515,114	3,100,114	3,100,114	3,100,114	14,584,483

TABLE 2.—DISCOUNTED DEFERRED COSTS AND BENEFITS

Year since initiation	Expected yearly cost	Expected yearly benefit	Discount factor for 10 percent	Present value cost	Present value benefit
1	1,769,027	0	.909	1,608,046	0
2	3,515,114	3,280,626	.826	2,903,484	2,709,797
3	3,100,114	3,280,626	.751	2,328,186	2,463,750
4	3,100,114	3,280,626	.683	2,117,378	2,240,668
5	3,100,114	3,280,626	.621	1,925,171	2,037,269
Total				10,882,264	9,451,484

Note.—Present value net benefit = −1,430,780; benefit-cost ratio = .87; most likely case.

PREPARED STATEMENT OF MICHAEL ZIMMERMAN, ASSOCIATE DIRECTOR, HUMAN RESOURCES DIVISION, GAO

Mr. Chairman and members of the committee, we are pleased to be here today to discuss our report[1] on the Veterans Administration's (VA's) efforts to establish an Automatic Data Processing (ADP) Centralized Development Center (CDC) in Austin, Texas.

The CDC was to centralize most computer program development and maintenance resources previously assigned to VA's five data processing centers (DPCs). This would involve transferring development and maintenance work and associated staff from the DPCs and VA's central office to the CDC. VA estimated, in August 1980 that VA benefits would exceed costs by $2.5 million over 5 years of operation. These savings were based on eliminating DPC personnel positions expected to accrue from implementing the CDC.

[1] "The Veterans Administration's Efforts to Consolidate Computer Programming Resources at a Single Location" (HRD-81-148, Sept. 18, 1981).

Our review of the CDC was performed in response to a congressional request, and as requested our work was limited to examining the (1) adequacy of VA's estimate of costs and benefits associated with consolidating most computer program development and maintenance resources at a single location and (2) basis for projected personnel savings.

On the basis of our work, we concluded that VA's examination of the estimated costs and benefits of the CDC was neither complete nor comprehensive enough to support a statement of whether establishing the CDC would be cost beneficial. While personnel ceiling reductions had been scheduled in anticipation of the savings expected to accrue from CDC operations, these savings are uncertain because they were based on a statistically invalid measure of improved programmer productivity, and a methodology that was not sufficiently documented to permit independent verification.

PRIOR GAO REVIEW

In July 1980 we reported [2] that VA needed to improve the management of its ADP resources and recommended that a separate staff of ADP analysts and programmers be established to do discretionary work such as development, redesign, and conversion of system and assign skeleton crews for system maintenance.

Our recommendation was directed at improving the management of VA computer programming resources thereby permitting greater control and flexibility in making staff available for system development, redesign, conversion, and enhancement projects. To allow agency management discretion and flexibility in choosing the best method of achieving the desired objective, we did not propose a specific organization structure, such as (1) centralizing development staff at a single location or (2) decentralizing and establishing pools at the DPCs.

THE CDC PROPOSAL, APPROVAL AND INITIAL IMPLEMENTATION

In an August 1, 1980, report, VA's Office of Data Management and Telecommunications (ODM&T), presented the results of its investigation into the feasibility of the CDC concept and recommended establishing the Center in Austin. This recommendation proposed transferring system development and some maintenance work along with associated personnel from each of VA's five DPCs to the proposed CDC colocated with the Austin DPC. The only anticipated equipment transfers were from the Hines DPC to accommodate computer program development and maintenance work on systems proposed for transfer.

The August report contained a 5-year estimate of the probable costs and benefits associated with establishing the CDC. These estimates showed net benefits—consisting of the elimination of 57 personnel positions at the DPCs by the end of fiscal year 1982—beginning to exceed costs in the second year of CDC operations.

In January 1981, ODM&T initiated the transfer of system development and maintenance work and about 180 employees from the Austin DPC to the CDC—both located in the same building in Austin—as the first step in implementation.

In March 1981, more detailed and updated information was prepared in an ODM&T study on the cost of relocating development and maintenance work on the Target system from the Hines DPC to the CDC. Also, during March and April, studies were completed of DPC system maintenance transfers to the CDC.

On April 8, 1981, ODM&T provided an updated estimate of CDC-related personnel savings consisting of eliminating 48 positions by the end of fiscal year 1981. At the end of April, 11 more staff had been transferred to Austin from other DPCs and the central office.

By the end of June, about 233 of the 392 authorized CDC positions had been filled, and most DPC development and maintenance systems had been transferred to the CDC except (primarily) the Target system at the Hines DPC. The other staff vacancies consisted of 159 positions expected to be filled from the central office, the Hines DPC, or new hires in Austin. The scheduled completion of the CDC implementation was to be by the end of fiscal year 1981.

TRANSFERRING THE TARGET SYSTEM AND STAFF WAS DELAYED

As a result of the internal VA disagreements and the absence of a confirmed Administrator, VA delayed transferring Target system development, maintenance, and associated staff to the CDC.

From the time the Administrator resigned in February 1981 until a new Administrator was confirmed in July, VA had two Acting Administrators who, on three

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[2] "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs" (FGMSD-80-60, July 16, 1980).

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occasions, addressed the actions needed to complete the CDC implementation—transferring the Hines DPC Target system development, maintenance, and associated staff. On each occasion, the transfer decision was deferred. Although several issues involved the risks associated with the transfer—such as the potential disruption of Target system development work scheduled for transfer to the CDC and the possible failure to retain knowledgeable staff at the Hines DPC needed to maintain operational systems—the primary concern has been whether the transfer was cost beneficial.

THE ORIGINAL DECISIONMAKING ESTIMATES WERE INCOMPLETE

As previously mentioned, the ODM&T August 1980 report presented probable costs and benefits associated with establishing the CDC in Austin. The net benefits were based on personnel savings achieved by eliminating 57 end-of-fiscal year 1982 positions—the difference between the number of positions (410) required to support computer program development and maintenance at the five DPCs and the number of estimated positions (353) to perform the same work at the CDC. In addition, 50 positions from VA's central office were required a the CDC to perform specification writing, but no savings were associated with these positions.

Although the report identified the methodology used to develop the personnel savings, many of the estimated costs were presented without providing the basis or methodology used. For example, $300,000 in severance pay was included without an estimate of the number of personnel whose employment with the Government would be terminated. In addition, estimates were not provided for costs associated with training new hires to replace VA employees choosing not to transfer to the CDC.

ADDITIONAL AND MORE DETAILED ESTIMATES WERE ALSO INCC IPLETE

Using an ODM&T March 1981 study of updated and more detailed estimates of the cost to relocate the Target system development and maintenance work from Hines DPC to the CDC, VA's Office of Planning and Program Evaluation (OP&PE) in its April 10 memorandum provided three cost/benefit ratios computed over 5 years of CDC operations—all of which indicated that moving the Target system and staff from Hines to the CDC was not cost beneficial.

Using the same March study, ODM&T in April 20 memorandum presented an analysis of the Target system transfer that showed a savings over 5 years of CDC operations.

Both the OP&PE and ODM&T analyses used an estimated savings of 14 personnel positions associated with the Target system transfer based on ODM&T's March study. However, based on ODM&T's revised April 8 estimates, the Target system move involved 30 of the 48 position savings to accrue from the CDC by the end of fiscal year 1981. The OP&PE and ODM&T April analyses should have used the estimated savings of 30 personnel positions associated with the Target system transfer.

A COMPREHENSIVE PICTURE OF THE CDC COSTS AND BENEFITS COULD NOT BE MADE FROM CURRENT ESTIMATES

Our examination consisted of comparing VA's estimated costs for computer program development and maintenance work under (1) the present, decentralized or five-DPC approach with (2) the proposed, centralized or CDC approach. Using ODM&T's and OP&PE's methodology as applied in their analyses of the Target system transfer, we identified 63 separate dollar estimates, of which 22 (or about one-third) where either missing or incomplete.

An example of an incomplete estimate was the 4-year cost—for fiscal years 1982-85—for additional space required at the CDC. The estimates provided varied from ODM&T's $299,800 to OP&PE's $679,000. The low estimates was based on an allotment of 135 square feet per employee, while the high estimate alloted 180 square feet per employee. Both of these estimates are incomplete or inaccurate—after adjusting for needed storage, conference, training, and parking space and unnecessary additional space for a computer—estimated CDC-related space costs over 4 years would be about $429,100. However, this estimate was based on the previously mentioned March 1981 study, which was limited to on-duty staff at the Hines DPC. Using the current April 8 staffing estimates, the cost for additional CDC space for new hires and staff transferring from all DPCs and the central office is about $913,500.

Other examples of incomplete and missing estimates are discussed in our report. The number of missing and incomplete estimates preclude an accurate statement of the costs and benefits associated with the total establishment of the CDC in Austin.

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While more detailed costs were prepared by ODM&T, a comprehensive examination of the costs and benefits was not made.

INVALID METHODOLOGY USED TO DEVELOP SAVINGS

The personnel savings associated with the CDC were based on eliminating 57 positions by the end of the fiscal year 1982 at the DPCs; this was revised in April 1981 to the elimination of 48 positions by the end of the fiscal year 1981. These personnel savings were based on an ODM&T estimate that computer programmer productive time would increase from a general agency estimate of 64 percent to a goal of 74.5 percent as a result of implementing the CDC.

As used by ODM&T, "programmer productive time" constituted the hours spent by an individual in computer program development or maintenance work, excluding time spent for leave, training, and administrative or clerical tasks. Therefore, a computer programmer's productivity rate is the ratio of the number of hours of programming work, including overtime if incurred, to the total number of work hours available in a reporting period. VA's measure of computer programmer productivity is simply her/his availability for programming work.

Current programmer productivity of 64 percent was represented as a general estimate for the agency. However, the programmer productive time used to develop this general estimate was based on VA's Project Administration and Control System (PACS), an ADP project control system, using actual programmer time reported at the Austin DPC only. Actual programmer time from the Hines, Philadelphia, St. Paul, and Los Angeles DPCs was not included in this estimate because comparable PACS data were not available from these sites.

The use of the Austin-based 64-percent programmer productivity rate as an agency estimate is inappropriate because it is not statistically representative of programming productivity at the other DPCs—actual and comparable productivity data were not used to develop the estimate. Employing this estimate to develop programmer-related savings at the Hines, Philadelphia, and St. Paul DPCs is statistically invalid.

LACK OF DOCUMENTARY SUPPORT FOR SAVINGS

The methodology presented in the ODM&T August 1980 report was misleading because it did not describe the acutal procedures used to estimate the savings in personnel positions. Further, the application of the actual methodology—as used to develop the August 1980 estimates and more than half of the savings in the April 8, 1981 revised estimates—could not be independently verified because ODM&T was not able to provide (1) the number of programmer positions used in its computations or (2) a position-by-position analysis documenting nonprogrammer position savings.

CONGRESSIONAL DIRECTION

In its June 25, 1981, report on the HUD-Independent Agencies fiscal year 1982 appropriation bill, the House Committee on Appropriations—in commenting on VA's plans to close the St. Paul DPC and to establish the CDC—said:

"The Committee urges VA to reassess the need, the projected economies, and especially the potential effects on customer services and priorities which may attend this plan to centralize systems analysis operations. The Veterans Administration should move cautiously in this area, and then only after fully exploring the potential consequences and with broadbased management participation."

Further, the Committee directed that VA furnish a plan covering all computer facility requirements over the next 3 years.

AGENCY ACTIONS

On July 9, 1981, during confirmation hearings before the Senate Committee on Veterans' Affairs, the Administrator said that apparently no study of the cost effectiveness of the CDC issue clearly supported moving the [Target] activity from Hines to Austin.

In a July 23, 1981, memorandum, the Administrator stated that he had decided not to transfer the Hines DPC Target system development, maintenance, and associated staff of the CDC and that the CDC implementation program was cancelled.

Mr. Chairman, this concludes our statement. We will be happy to respond to any question you or other members of the Committee may have.

U.S. General Accounting Office Answers to Questions From the House Veterans' Affairs Subcommittee on Oversight and Investigations Pursuant to Hearings Held October 7, 1981

Question 1. The GAO concluded that VA's examination of the estimated costs and benefits of the CDC was neither complete nor comprehensive enough to support a statement of whether establishing the CDC would be cost beneficial. What information did the VA need to supply to make their examination complete and comprehensive?

Answer. The conclusion in our September 18, 1981, report [1] was based on our examination of VA's original decisionmaking estimates, estimates made up to the end of April 1981, and methodology for developing personnel savings.

VA's original decisionmaking estimates—made in ODM&T's August 1980 report—did not account for certain cost factors and were presented without providing the basis or methodology used (for details, see our September 1981 report, pages 6–8). Further, we could not develop a comprehensive picture of VA's estimates as of the end of April 1981 because of missing or incomplete data. These include such items as (for details, see our September 1981 report, pages 8–10): incomplete recurring costs for training and the cost impact of less efficient, new entry-level programmers; inaccurate estimates made for additional space required at the CDC, and incomplete estimates made for the one-time cost for project slippage.

In addition, VA's methodology for developing personnel savings—upon which rests the benefits of implementing the CDC—employed a statistically invalid procedure. Further, we could not independently verify the estimated personnel savings because ODM&T was not able to provide supporting figures or documents (for details, see our September 1981 report, pages 10–14).

Accordingly, VA should have: (1) developed a supportable, documented basis for its estimates—this includes a position-by-position analysis of personnel savings, the number of programmer positions used in computations, a network traffic analysis, etc.; (2) employed a generally accepted methodology—such as the development of an agency programmer productivity rate based on actual and comparable productivity data from the DPCs; and (3) developed complete and accurate cost estimates covering all DPCs and all cost factor—this includes recurring training costs, cost of replacing experienced personnel (not just programmers) with new hires, cost of additional space, cost of project slippage, etc.

Question 2. Did the GAO prepare an independent cost benefit analysis of the CDC consolidation?

Answer. We did not perform an independent cost/benefit analysis, because we were requested to assess the adequacy of VA's analysis. To perform such an analysis, GAO would have to independently develop information such as: productivity data for each DPC, position-by-position analyses, a network traffic analysis, recurring training costs, etc. Such an effort would have extended our work well beyond the reporting time frame as agreed with the congressional requesters and other concerned parties.

Question 3. Did the GAO make a detailed and comprehensive analysis of factors (other than direct personnel savings) associated with establishing the CDC . . . factors such as the effect of the consolidation on managerial efficiency, coordination of effort and resources, flexibility of resources, development of standardized system documentation and development methodologies . . . factors cited as critical in the July 16, 1980 GAO report? [2]

Answer. As agreed with the congressional requesters, we were to assess the adequacy of the tangible or measurable benefits and costs of VA's justification for the CDC. The scope of our work was largely determined by the need to provide the congressional requesters with an assessment before the initiation of staff relocations from the Hines DPC. VA officials and other concerned congressional parties concurred in the need to complete our work as expeditiously as possible. An analysis of the intangible factors mentioned in the question were beyond the scope of our review and the conduct of such an analysis in conjunction with our review of the tangible basis for the CDC would have extended our effort into a time frame that was clearly unacceptable to interested parties within the Congress and VA.

Question 4. Did the GAO attempt in any way to assess whether the consolidation of computer development and maintenance functions at the Austin CDC meets the needs identified by the GAO in its July 16, 1980 report, recommending improvements in the management of ADP resources?

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[1] "The Veterans Administration's Efforts to Consolidate Computer Programming Resources at a Single Location" (HRD–81–148, September 18, 1981).

[2] "VA Must Strengthen Management of ADP Resources to Serve Veterans' Needs" (FGMSD–80–60, July 16, 1980).

Answer. Our July 1980 report recommendation to set up a staff of ADP analyst and programmers to work on discretionary projects and assign skeleton crews to provide systems maintenance was based on two primary needs—establishing work priorities and elimination of "make work" projects at the DPCs. Because the consolidation of development and maintenance work at the CDC was still being implemented at the time of our review, information supporting these or other recommended improvements was not then available. At that time only a small number of projects had been completed under the CDC approach—the bulk of the projects then in process were backlogged from the prior DPC or decentralized management approach. Therefore, performance of such an assessment would have been premature, incomplete, and of marginal value.

Question 5. Has the GAO prepared a comprehensive, detailed report recommending that the VA abandon the CDC, or "centralized" approach, in favor of so-called "centers of expertise" or decentralized strategy?

Answer. GAO has not prepared a report recommending the VA abandon the CDC. VA's decision to establish the centers of expertise was made subsequent to our review.

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PREPARED STATEMENT OF ROBERT R. DONALDSON, VICE PRESIDENT, FEDERAL SYSTEMS OPERATION, HONEYWELL INC.

Mr. Chairman and Members of the Subcommittee, I am Robert R. Donaldson, Vice President, Federal Systems Operation, Honeywell Inc.

I am very pleased to have this opportunity to provide you with a status report with regard to Honeywell's involvement in the Veterans Administration TARGET Program.

In response to your request, we have prepared a detailed report on a series of recommendations Honeywell made to help improve the VA's internal ADP operations. With your permission, Mr. Chairman, I would like to briefly summarize our current assessment of the TARGET Program and submit our report for the record.

I am proud to report that the TARGET system is fully operational and, most importantly, is meeting or exceeding the requirements of the program. Specifically, we have achieved an availability rate in excess of 95% throughout the United States and Puerto Rico. The system is reliable and responsive. For example, this past month, September 1981, the TARGET system processed a peak daily rate of more than 230,000 complex transactions. In computer terms, this means the system processed more than a million different inquiries each day using three (3) data bases located hundreds of miles apart. It should further be noted that on a nationwide basis, the vast

majority of these transactions were responded to in five (5) seconds or less. In human terms, it means that the American Veteran today is getting timely and valuable service; he is receiving accurate information quickly and reliably.

The technology used in TARGET is truly state-of-the-art. An interesting and comprehensive description of this technology has been published by AUERBACH's Data Processing Management Services. Because I believe this article would be of interest to you, I have attached copies to my prepared statement.

Further evidence of the success of the TARGET system has been demonstrated by the wide-spread domestic and international interest in the system. Blue Cross/Blue Shield, the Metropolitan Life Insurance Company, the Government of Mexico and a group of French banking concerns have observed TARGET in operation and are studying the system for possible use in their organizations.

That I am able to provide you with such a favorable report on TARGET today is a function of two critical factors. First is the far sighted decision made some 3 years ago to use the latest in data base technology. Secondly, and perhaps most importantly, TARGET is a success story because of the extremely hard work and dedication of a number of people from the Veterans Administration

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and Honeywell. These people literally worked day and night for years. Their efforts were above and beyond the call of duty and I am proud of them.

In closing, I would like to reaffirm Honeywell's total commitment to the TARGET Program. That TARGET is successfully serving America's Veterans today is a tribute to the foresight of the Congress and the hard work of the Veterans Administration. Honeywell is proud to be a part of this program, and we look forward to working to ensure its continued success and enhancement. Thank you again for the opportunity to appear before you. I will be pleased to respond to any questions you may have.

Consolidated Report of the Operational Audit of the Hines DPC Performed by Honeywell Information Systems

SECTION A

1. ASSESSMENT

System reconfiguration procedures from hardware failures require further development.

o RECOMMENATION

That the VA, Honeywell Federal Systems Operations (FSO), and Field Engineering work together to develop more comprehensive reconfiguration procedures.

o HONEYWELL ACTION

Reid Sherwin and Sam Guthrie will work with VA to develop more comprehensive reconfiguration procedures.

o VA ACTION

a. Background - Some work was done on such procedures by Honeywell systems analyst personnel at the Philadelphia RDPC. However, no systematic approach has been taken to establish such procedures in a uniform and consistent manner at all RDPC's.

b. Method of Approach - The VA technical representative for this action will be the Chief Hardware Section, Systems Techniques Division (325B). Shortcomings in the current methods of storing, maintaining, protecting, and invoking alternate GCOS boot descriptor files must be determined. The reasonable set of alternative configurations for each processor must be established based on past experience of hardware failure and recovery. The alternative configurations must accommodate the most common categories of major component failure. Each alternative configuration must be thoroughly documented in terms of operational impact, reference to corresponding GCOS boot files, and procedures for invoking the alternative configuration.

c. End Product Target Dates - (1) Procedures for inclusion in Target Computer Operation Procedure Manual (COPM) - November 15, 1979; (2) GCOS boot descriptor files - November 15, 1979.

- STATUS

  Completed

2. ASSESSMENT

Documentation does not reflect software modifications made for VA.

- RECOMMENDATION

  VA/Honeywell should expand internal documentation and its distribution.

- HONEYWELL ACTION

  Honeywell is developing addenda to the DM-IV TP Site Manual (DF45), the DM-IV TP Reference Manual (DF46), GRTS-II Manual (DG15), and GRTS-II Startup Manual (DG14) to reflect VA-specific software capabilities. VACO will be responsible for the distribution of these addenda within the VA Target organization.

- VA ACTION

  The Management Staff (32C) is the responsible VA office for revising distribution lists for new Honeywell publications, and for ordering stocks thereof for distribution throughout the Benefits Delivery Systems Support Service and the RDPC's. The Systems Techniques Division (325) will notify the Management Staff of the availability of new Honeywell publications that document VA-specific software. Target dates for these VA responsibilities are contingent on future Honeywell publication dates of these addenda.

- STATUS

  Honeywell delivered (4) four VA-specific manuals rather than providing addenda. These manuals were released to the VA under cover of Technical Coordination Letter No. 322.

  The four new documents submitted were:

  1. Distributed Network Processing Architecture (1/16/81)
  2. Protect and Recovery Users Guide (8/3/81)
  3. Training Mode User's Guide (3/31/81)
  4. Forms Mode User's Guide (3/25/81)

  Completed

3. ASSESSMENT

There is a delay in receipt at the RDPC's of known error tapes, release bulletins, etc.

- RECOMMENDATION

  VACO should expedite distribution to Chicago. In critical cases, the material should be sent directly to Hines with the control information to VACO.

- HONEYWELL ACTION

  Honeywell will ensure that release documentation is delivered to the Chief, Systems Techniques Division, BDSSS, no later than three days before the related magnetic media is delivered to the VA designated location (VACO or Hines DPC as the situation requires). The Systems Techniques Division will disseminate the release information as soon as possible according to established VA procedures. The monthly known error tape should be transmitted to the Hines DPC by VACO no later than five days after receipt. The Hines DPC will be responsible for sending out copies of the known error tapes to the Philadelphia and Los Angeles DPC's.

- VA ACTION

  The Systems Techniques Division (325) has already established internal procedures to assure that both hardcopy and magnetic media are forwarded to Hines on the same day as they are received from the contractor. There have been no recent problems with this procedure, and no further action is required by the VA.

- STATUS

  Completed

4. ASSESSMENT

L/6 release 6.00 (Message Queuing) has been delayed due to the unresolved contractural problems, Release 6.00 is expected to resolve outstanding problems at the RO level.

- RECOMMENDATION

  That VACO/FSO expedite contractural negotiations and approval. In the interim, back fixes out of Rel. 6.00 and incorporate in the new release (5.12).

- ACTION

  This recommendation has been implemented, and no further action is required by VA or the contractor.

- STATUS

  Completed

SECTION B

1. ASSESSMENT

Level 6 (VA Level 2) software errors are occurring too frequently at RO's.

- RECOMMENDATION

  Implement new version of Level 6 software (Rel. 5.12) and expedite outstanding L6 STARS (System Technical Action Request).

- ACTION

  The corrected release of Level 6 software has been installed at all RO's.

- STATUS

  Completed

2. ASSESSMENT

DM-IV/TP Journal Problems: Aborts due to tape drive problems; lengthy reel swap interruptions and delay, and short delays during Rollback of transaction.

- RECOMMENDATION

  That HIS explore the implementation of disk journalization, and determine reasons for not being able to reach a clean point at journal swap time

o ACTION

Honeywell is currently developing two GCOS modifications that would allow more efficient recovery from lost interrupts and tape errors. The implementation of these GCOS changes would shorten the delays that used to be encountered when lost interrupts or tape errors occurred. In parallel with the GCOS effort, Honeywell is investigating the use of random disk files for some or all of the journal record types. VA will be advised of Honeywell's findings when the investigation is completed.

o STATUS

DM-IV/TP Tape Journal problem has been resolved with the implementation of disk to tape journalization implemented by software release 1.7.6 dated June 30, 1980.

Completed

3. ASSESSMENT

Potential Datanet Line Transfer Problem: When switching lines to backup Datanet, lines will get masked in the HSLA a small percentage of the time; thus requiring a reboot.

o RECOMMENDATION

That a GRTS-II master console be assigned to clear mask. The drawback is that this assignment requires Datanet buffer space.

o ACTION

A simulated Datanet load, configuring a Master Console facility allowing only the SETM/RSTM functions was performed. It was determined that the configuration of this facility would cost approximately 200 words of memory. The VA must weigh this cost in buffer space against the frequency with which a Datanet reboot would be necessary during a line switch. In a properly functioning line transfer device, masking of channels in the secondary Front-End Processor (FEP) during a line switch should occur no more than five percent of the time. If lines consistently get masked off during line switching, Honeywell Field Engineering Division (FED) should be called in to determine whether the Line Expansion Functions (LEF) are too sensitive to noise. Mr. Reid Sherwin will be available to assist the VA designated person in configuring the Master Console facility if the VA management so decides.

o STATUS

Due to the extremely low frequency of this situation Master Consoles have not been configured. The option remains open should the need arise.

Resolved

4. ASSESSMENT

There is a need for a FSO DM-IV specialist on site.

o RECOMMENDATION

Add a DM-IV/TP specialist to site FSO staff.

o ACTION

A technical specialist with DM-IV/TP experience has been identified as the replacement for John Lampson. This technical specialist will be on site at the Hines RDPC in the near future.

o STATUS

A replacement for John Lampson was made October 1, 1979 with the relocation of John Grimes to Hines, Ill. The support for DM-IV/TP was transfered to VACO on May 9,1980.

Resolved

5. ASSESSMENT

Delay of updates for DM-IV/TP and GRTS-II to every 3 months.

o RECOMMENDATION

Release updates on more frequent intervals based on urgency of problems. Updates should be reviewed with VACO to determine trade-offs of content to release frequency.

o ACTION

A software configuration control scheme has been implemented for GRTS-II so that corrections can be transmitted and applied on site. This scheme will allow changes to be installed and pulled out with ease. The Systems Techniques Division can monitor availability of corrections by accessing certain files in the Honeywell McLean Data Center System through Time Sharing. A Technical Coordination Letter (TCL) documenting this facility was given to the VA. A similar facility will be developed for DM-IV/TP. A three man-month effort is anticipated to install the software configuration control scheme for all software items under the DM-IV/TP umbrella. The target date is December 15, 1979 In the meantime, Honeywell plans to issue TP releases as frequently as once a month depending on the availability of significant corrections.

o STATUS

DM-IV/TP and GRTS II release frequency was accelerated to a monthly basis following the Hines Audit. More recently, the level of software stability has required less frequent changes. The VA is currently utilizing TP release DNW 1.7 Rev. 6 and GRTS II release VA 1.4 Rev. 1.

Implemented

6. ASSESSMENT

The current approach for logging, tracking and responding to System Technical Action Requests (STARS) is fragmented.

o RECOMMENDATION

Control at site level by Systems Analyst, assure consistent customer NAME/SYS. NO. on all STARS.

o ACTION

A VA STAR database will be maintained in the Hines RDPC containing the following information for each outstanding STAR: STAR number; date sent to appropriate development group; date receipt was acknowledged; last status; date of status, and problem description.

The file will be organized by software item. A TCL documenting this facility will be delivered to the Systems Techniques Division.

o STATUS

The VA STAR Database TCL (#238) was delivered to the VA Systems Techniques Division on September 11, 1979.

Completed

7. ASSESSMENT

Latest revision of T&V's (Test and Verification Routines) are not available at all RO's.

o RECOMMENDATION

VATAC reps survey their regions and assure that latest T&V's are on site.

o ACTION

The T&V packs whether old or new contain the same test and verification routines. The only change is in the manner in which these T&V routines are retrieved. However, it is still necessary to ensure that all T&V packs are identical for the RO's. The District Managers have been provided with the procedures for obtaining new T&V packs.

The Chicago VATAC, John Neyer, will survey all Honeywell district managers in the Central Region to determine the status of T&V packs by September 1, 1979. New T&V packs should be available at all regional offices no later than November 1, 1979.

o STATUS

Honeywell Field Engineering Division has introduced a product called TACPAC. TACPAC is a hardware support system that includes the latest revision of Test & Verification routines which execute automatically on a computer system.

TACPAC was distributed to VA during 4th Quarter (CY) 1980, and is operating on all Regional Office Terminal System sites.

Completed

8. ASSESSMENT

Portable control panels and Data Comm Test Boxes are not universally available to all field engineers servicing RO's.

o RECOMMENDATION

VATAC Regional Managers survey their regions for difficulties and inform appropriate District Managers to order as needed.

o ACTION

VATAC will inform the district managers responsible for each Regional Office that a portable control panel must be at each site. Procedures are in place for ordering these panels. A second survey will be conducted in December 1979 to ensure that portable panels are at each site.

Data Comm Test boxes were not originally designed as a site requirement. National Accounts will write a letter to Honeywell Product Support to reassess this need. The reassessment should be completed by October 15, 1979. If the test boxes are deemed necessary, Product Support will ensure that each Regional Office has a Data Comm Test box by November 30, 1979.

o STATUS

Portable Control Panels and Data Comm Test Boxes are now maintained in all District Offices servicing VA Regional Offices.

Completed

9. ASSESSMENT

There are logistic problems with keyboards and badge readers.

o RECOMMENDATION

FED National Accounts have identified the problem and are implementing corrections.

o ACTION

AMSR board swap involving an additional capacitor to increase badge reader reliability and to eliminate keyboard generated noise signals is underway. To date, all keyboards in Regions I and III are complete and 200 keyboards in Region II have been done. This project should be completed by mid-November 1979.

- ACTION (cont)

  A means of increasing badge reader sensitivity is under study and a proposal for implementation will be developed.

- STATUS

  Field Change Orders (FCO's) were designed and installed at each Regional Office by a group of Engineering Specialists from Honeywell's Manufacturing Facility. These specific FCO's have cured the logic problems within the keyboards and badge readers.

  Additionally a procedure was established to allow the Field Engineering Representative to repair the badge readers at the terminal site. The earlier procedure was to totally replace the reader mechanism.

  Completed

10. ASSESSMENT

FED Procedures relative to intermittent disk problems may cause destruction to live data.

- RECOMMENDATION

  That the VA and Honeywell develop a mini-disk system (one pack/string) to allow troubleshooting with system loading without danger to line data.

- ACTION

  A two-pack GCOS system has been built for Field Engineering use. A TCL distributing system and recommended operations procedures relating to the use of this pack will be delivered to the Systems Techniques Division.

- STATUS

  A Media Maintenance TCL (#262) was delivered to the VA Systems Techniques Division on December 3, 1979.

  Completed

11. ASSESSMENT

Elevation of network outages to higher management is not proceduralized within Honeywell.

o RECOMMENDATION

Develop procedure to notify higher management of problems.

o ACTION

VATAC will act as focal point and elevate extended outages at RO's to appropriate FED Management/National Account Management as follows:

(FUNCTIONAL)

DEVICE	NOTIFICATION	TIME (hours)
Level 3 Outage	District Manager	2
	National Account Manager	4
	Regional Manager*	4
Level 1 or 2	District Manager	4
	National Account Manager	8
	Regional Manager *	8
Terminals	District Manager	16
	National Account Manager	32
	Regional Manager *	32

* Normally the National Account Manager will notify the Regional Manager. If VATAC is unable to contact the National Account Manager, he/she will then notify the Regional Manager him/herself.

o STATUS

Implemented

12. ASSESSMENT

Turnaround is slow on hardware STARS (hardware error reports).

o RECOMMENDATION

Involve Field Engineering National Accounts Group to monitor status.

o ACTION

All Honeywell organizations that generate hardware STARS have been advised to furnish a copy of any such STARS

o ACTION (cont)

relating to TARGET network equipment to the error control point at Philadelphia, Los Angeles, or Hines. A copy will also be forwarded to the National Account Manager so that STAR's can be monitored and expedited into any required Engineering Change Orders.

o STATUS

Implemented

13. ASSESSMENT

The experience/training level of local Field Engineering Reps is low due to abnormal attrition rate in the past.

o RECOMMENDATION

Proceed with rigid training plan to achieve necessary levels by the end of 1979. Field Engineering Region and Operations personnel will provide backup as required in the interim.

o ACTION

FED District Manager to proceed with rigid training plan to achieve the necessary levels by the end of 1979. Region and OPS personnel will provide backup as required in the interim.

o STATUS

Honeywell Training Schools have been completed by all the previously inexperienced FER's. In addition Field Engineers now have two years of hands on experience with the VA/TARGET equipment. The District that supports the Hines DPC was awarded Honeywell's Field Engineering District of the Year Award for Central Operations in 1980.

Completed

SECTION C

1. ASSESSMENT

The impact of Operations on RO performance and network availability is not stressed.

o RECOMMENDATION

The VA should stress to Operations and to the Equipment Analysis Group the criticality of the online system. Fast recovery is the key in a production environment, but steps must be taken to affect the least number of RO's on terminals during the recovery process.

o ACTION

Several steps have been taken by the Operations and Systems Techniques Divisions to stress to the operations, Equipment Analysts, Technical Control Center (TCC), and STD personnel the criticality of the online system.

A single point of contact has been established between the Technical Control Center and the Systems Techniques Division. Upon receiving a call, a dispatcher within STD has the responsibility of ensuring the available and most knowledgeable specialist is dispatched to the Computer Room. This procedure has significantly reduced STD response time to Target problems and has given the Technical Control Center more time to inform the user of a pending problem and to devote more time to problem determination.

Written procedures covering known Target Network software problems have been developed for the TCC. These procedures categorize, define, and give specific operator actions that are to be followed in certain software failures. These procedures have greatly reduced Target Network outages during TP failures for which recovery action will always be the same. On all unknown hang and failure conditions that occur, TCC utilized the single telephone contact point to immediately consult with STD.

The Chief, Operations Division, has written a memorandum to all affected personnel, clearly defining Target Network and Operations Division responsibilites.

STD has issued pagers to key technicians to allow immediate contact with persons best able to resolve a problem.

Emphasis on fast recovery has been conveyed to all STD personnel with online system responsibilities. Since the implementation of these time saving measures, response time by STD personnel has improved considerably.

o STATUS

In addition to the action items outlined above the VA has established periodic briefings between the Systems Techniques Division, Applications Programming, and Operations to review pending software changes. These briefings allow Operations to recognize and react more effectively to problems as they arise.

Completed

2. ASSESSMENT

Operator Training is incomplete.

o RECOMMENDATION

The VA should schedule operator training.

o ACTION

This assessment is rather vague; however, we recognize that there is a continuing need for operator training. Our needs have been communicated through appropriate channels to Central Office as all funding for training and travel costs has been controlled by Central Office.

o STATUS

A recently completed operational audit at the Hines DPC pointed out the need for additional training in the Operations Division. Due partially to the amount of turnover that exists in the field of Computer Operations the need for training will probably remain constant. To assist the DPC's in providing inexpensive yet thorough training for operators, two audio-visual training packages have been procured for each site. These packages cover Basic Level through Intermediate Level operator techniques.

Implemented

3. ASSESSMENT

The Equipment Analysis Group is not utilizing available system monitoring tools.

o RECOMMENDATION

The VA should use monitoring packages available for load optimization as the batch and online loads increase, e.g. RCAP, SYNOM, SAGA, etc.

o ACTION

a. Method of Approach - The VA technical representative for this action is the Chief, Hardware Section, Systems Techniques Division (325B). The VA office will review the usefulness of the monitoring data and will establish procedures for the routine use thereof.

b. End Product Target Dates - (1) Report on the usefulness of monitoring data - Novermber 30, 1979; (2) Procedure for routine use of monitoring data to be included in Target COPM - December 30, 1979.

o STATUS

Honeywell's most recently released version of TP provides extended statistical gathering techniques. Additionally, the VA has developed their own specific measurement tools. The tools now in use, some of which were developed jointly with onsite Honeywell systems analyst support, allow VACO to analyze the workload at each DPC as well as each RO. The VA is able to examine response time highs and lows by command, and based on that data are able to suggest minimum criteria in the development of new application program modules. Workload statistics have also been useful in balancing the national workload between the three RDPC's. Several monitors have also been developed which provide system software and TP software personnel with an up to the second look at the processing being accomplished by any given RDPC. This monitor points out any bottlenecks in the processing, line problems, etc, and allows quick resolution of that problem.

Completed

4. ASSESSMENT

Cooperative Reporting System (CRS) reporting is incomplete and sketchy.

o RECOMMENDATION

Assure emphasis is placed on the complete and thorough reporting on CRS.

o ACTION

a. Method of Approach - The VA technical representative for this action is the Chief, Operations Management Section, Systems Techniques Division (325D). The new Target Hardware Incident Form (THIF) will be used in the RDPC's starting October 1979. This form has been designed specifically for the Target System and its completion will be much simpler and more error-free. The implementation team from the VA

- ACTION (cont)

  office will provide orientation at each RDPC.

  b. End Product Target Date - Procedures for completion of THIF to be included in Target COPM - November 30, 1979.

- STATUS

  The initiation of the Target Hardware Incident Form (THIF) was accomplished in November 1979. The THIF has achieved its desired purpose.

  Complete

5. ASSESSMENT

Air conditioning failure detection is still based on "warm feeling" even though procedures exist.

- RECOMMENDATION

  Accurate temperature and humidity sensors should be installed by the VA with load (sic) audible alarms and flashing warning lights.

- ACTION

  The VA has ordered the type of equipment recommended.

6. ASSESSMENT

The temperature and humidity recorder is out of calibration.

- RECOMMENDATION

  Calibrate as soon as possible.

- ACTION

  Calibration of the temperature and humidity recorder has been accomplished by VA Hines Hospital Engineering personnel.

- STATUS

  Completed

7. ASSESSMENT

There is a computer room carpet problem, which causes lint to be lodged in equipment and serious static electricity charges to be emitted that result in unit power drops when paper from the printer is carried to MTP, VRC, and IOM.

o RECOMMENDATION

Connect a grounding wire from the bottom plate of the movable portion of the paper staker to the base of the staker. Connect a ground wire from the base of the staker to the raised floor support (ground).

Construct an electrical ground grid beneath the raised floor around the periphery of the PRU1600, MTPA, URCB, and IOM B. Reduce the impedance to ground.

Maintain paper storage room at the same temperature and humidity levels as the computer room.

Interchange carpeted floor tiles near PRU1600 area with carpeted tiles from around the periphery of the computer room. This puts new, unsoiled carpet in the static area.

Determine through testing if the static problem is unique to using double page paper. This is a strong possiblity.

Investigate the use of sprays or other methods to prevent the problem.

o ACTION

Connecting grounding wires to the movable portion of the paper stacker, etc. is a responsibility of Honeywell Field Engineering. Constructing an electrical ground grid as recommended needs to be evaluated by Central Office and, if approved, funded by Central Office.

We have stored some standard form paper in the Computer Room for acclimatization to see if this has an effect on the static electricity problem. If so, we will revise our procedures.

We are investigating having the Computer Room carpet cleaned on the theory that to some extent, the additional static electricity problem may be caused by dirt build-up in the carpet.

- ACTION (cont)

  A table has been placed in the Computer Room for use by onsite personnel, thereby eliminating the need to place computer listings on the equipment. Since that time, the incidence of static problems has reduced dramatically.

- STATUS

  Extensive research showed that the problem caused by static electricity could be solved by attaching grounding straps to the printers as recommended by Honeywell and the strategic placement of rubber mats throughout the Computer Room. Once these actions took place the problem dissipated.

  Corrected

8. ASSESSMENT

RO's with Level 3 equipment want and need the capability of interfacing from Terminals/Printers on one Level 2 to other Level 2 when outage occurs.

- RECOMMENDATION

  This function was not considered or planned for in the current design. Explore the feasibility of providing this backup functionality to RO's. If not feasible or reasonable, so inform Level 3 RO's.

- ACTION

  Action on this recommendation is being deferred until complete installation of the network. At that time, the experienced hardware rates of Level 6 devices will be reviewed to gauge tho cost effectiveness of this recommendation.

- STATUS

  This function was found not to be cost-effective based upon the Level 6 mini-computer availability (performance). The few times that the function would have been activated would not balance the high cost of its implementation.

  Resolved

9. ASSESSMENT

TCC Operators are not using full functionality of TCC in all cases.

o RECOMMENDATION

That the VA provide further training as required in conjunction with TCC vendor.

o ACTION

a. Method of Approach - Insufficient training is not viewed by VA as the root cause of the unfulfilled use of all equipment capabilities. Procedures, guidelines, and job aids must be refined from the basic vendor technical literature in order to fulfill the use of the equipment. In some cases software must be developed inhouse, e.g. Intershake diagnostic routines. A major undertaking will be made in the first quarter of FY1980 to refine the TCC support documentation. The VA technical representatives for this action will be the Chief, Hardware Section, Systems Techniques Division (325B).

b. End Product Target Date - (1) Report on deficiencies in use of TCC equipment and proposed solutions - November 15, 1979; (2) Revised or new procedures, guidelines, and job aids for inclusion in the Target COPM - December 30, 1979.

o STATUS

Both Honeywell and the VA have improved the quality of the TCC procedural materials (as a result of the operational audit), and provided job-aids in the realm of RO configuration listings and system generation worksheets. We are continuing to search for methods of making the TCC more effective.

Ongoing monitoring

10. ASSESSMENT

No micro-fiche copies of Field Change Order history and Wire Wrap Board status are onsite.

o RECOMMENDATION

Order a reader and micro-fiche to be kept at Hines.

o ACTION

FED District Manager has ordered a reader and micro-fiche to be kept onsite at Hines.

o STATUS

These items are onsite at Hines.

Completed

11. ASSESSMENT

The security door lock is inoperable between the Computer and FED rooms. When repaired, it will be an emcumberance to FED.

o RECOMMENDATION

Move the security door lock to a location between the FED room and the outside hall.

o ACTION

The Rusco Card Reader in the FED rooms secures the Computer Room from unauthorized personnel who may have access to the FED room. Provision will be made to equip the FED room with a cypher lock on the door leading to the outside hall.

o STATUS

Implemented

12. ASSESSMENT

There is an inconsistency of failure incidents reported between RO outage logs and the Terminal System Network Log.

o RECOMMENDATION

The VA must assume consistency of problem reporting from RO to TCC to provide an accurate picture with regard to network availability to the RO.

o ACTION

In September 1979, Supplement 1.3 of MP-6, Part XXV, "STO Procedures" will be officially published for the first time. The Supplement will describe the incident reporting requirement of the STO. Additionally, telephone conferences will be be arranged with each RO to discuss these requirements. The VA technical representative for this action is the Chief, Operations Management Section, Systems Techniques Division (325D).

o STATUS

MP-6 Part XXV, Supplement 1.3 issued very clearly defined

o STATUS (cont)

reporting procedures for the STO to follow. These guidelines are being followed, as evidenced by the comparability of RO availability figures from DVB and ODM&T.

Implemented

13. ASSESSMENT

There is an insufficient quantity of programming manuals.

o RECOMMENDATION

Honeywell recommends that the VA survey its current Honeywell publication requirements relative to the software now in use in the Target network and the number of personnel who need access to these publications. The VA should then acquire publications that are required but not currently in the VA library and re-examine the internal publication distribution procedures to ensure that all personnel who need the manuals in the performance of their work have access to them.

o ACTION

We do not fully understand the reason for this recommendation. We have surveyed our current Honeywell publication requirements relative to the software now in use in the Target Network and find that our current distribution is adequate. Programmers have a natural tendency to feel that they do not have all the manuals they need for the performance of their job. All manuals and updates provided to this DPC in accordance with provisions of the RFP with Honeywell have been placed under the control of our technical library. Our action in this area is that Central Office will review the Contract regarding manuals to determine if the number of copies is still valid and whether or not the manuals provided in accordance with the RFP are accurate and/or necessary for this DPC.

o STATUS

Sufficent quantities of manuals are now available. The Hines DPC ordered an additional amount above what the contract calls for which seems to have satisfied all concerned.

Completed

INSIDE:
Geographical and Functional Description, Hardware/Software Architecture, Software Extensions, Data Base, Computer-Assisted Instruction, Equipment Inventory Management, Privacy/Security, Management Issues, Future Plans

65-01-06

CASE STUDIES

Distributed Processing in the Veterans Administration

by Thomas H. Acklen

PAYOFF IDEA. Over the past several years, the VA has planned, developed, and implemented an on-line, interactive distributed processing and data base network to replace its outmoded DP Benefits Delivery Systems. This portfolio is a case study of the new system, which has come to be known as the Target System.

BACKGROUND

The Veterans Administration (VA), officially established in 1930, has provided a wide range of services for the nation's veterans. Today, the chief activities of the VA regarding veterans' care and benefits are reflected in the three departments that administer health care in 172 medical centers, process benefits in 58 regional offices, and administer burial benefits at 103 national cemeteries. The VA now employs more than 200,000 people and has an annual budget exceeding $20 billion. Of that amount, approximately $14 billion is devoted solely to the provision of compensation, pension, and education (CP&E) benefits to a veteran and dependent population of approximately 7.5 million. The Target System was designed and developed to support this dispersal of funds for benefits.

As the benefits grew rapidly, it became apparent that the previous CP&E systems were totally inadequate, both in terms of costs and benefits and in terms of service to the veteran population. That system,

designed and developed beginning in 1959, was originally a centralized batch system programmed for an IBM 705 III. The system was converted for IBM 7080 processing and later converted to an IBM 360/370 application with various forms of input to the central host system. These included manual, keypunch, key entry, optical character recognition, Teletype messages, and decentralized key-to-diskette (later converted for tape entry). Although the system had been optimized and enhanced, it was readily apparent by 1971 that the system was close to functional obsolescence.

In 1972 a design study led to the development of a prototype system to test the organizational functionality and feasibility of an on-line inquiry and claims processing system. That prototype system became operational in 1974 in Philadelphia and rapidly proved that the concept would not only significantly improve work flow at regional offices at a cost saving to the government but would also significantly improve service to veterans. A request for proposals was developed and released. During the procurement process (which was lengthy and politically charged), the feasibility of the prototype system was further demonstrated through tests of inquiry and claims processing functions in Baltimore and of inquiry functions in New York, Washington, and Los Angeles.

During this period, the VA recognized that a reorganization of the human environment was in order, and the functional areas of the regional office claims processing departments were reorganized to reflect the new DP environment. After the prototype test proved successful, a contract was awarded to Honeywell Information Systems Inc in October 1977. Other contracts were awarded to Paradyne Corporation for modems and to American Telephone and Telegraph Inc for communications lines.

Since that time, the VA, Honeywell, and other contractors have been engaged in the conversion and development required for nationwide implementation of the system. Despite a number of problems, the inquiry portion of the system was implemented in its entirety by February 1980. Implementation of the claims processing portion of the system was completed by September 1980. Although significant enhancements remain to be implemented, the system as currently installed has a high degree of user acceptance and is performing satisfactorily.

GEOGRAPHICAL AND FUNCTIONAL DESCRIPTION

Before describing the specific details of the system's hardware and software configurations, applications software characteristics, and data base characteristics, a discussion of the basic geographical structure of the network and the general functions of the system is useful.

The host components of the system to which the regional offices are linked are the central payment system (CPS) located at Hines, Illinois, a suburb of Chicago; the beneficiary identification and records locator system (BIRLS) located at Austin, Texas; and the three regional data processing centers located in Philadelphia, Chicago, and Los Angeles.

The Chicago regional center is colocated with the central payment system at Hines. Figure 1 is a diagram of the major system components.

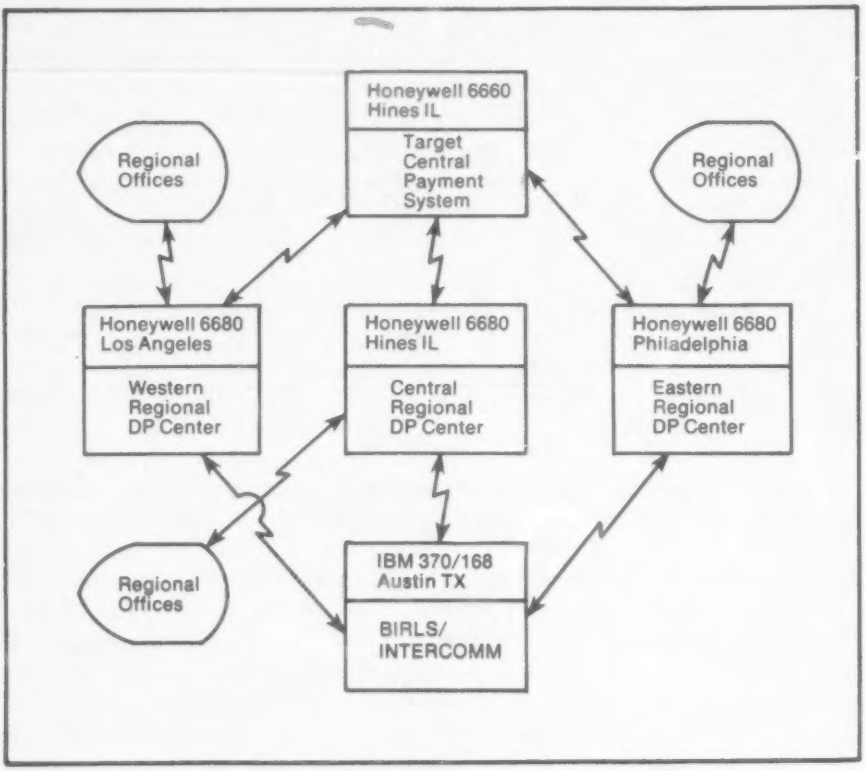

Figure 1. Target System Major Components

Central Payment System (CPS)

The Central Payment System (CPS) is the host system that maintains and updates the central data base for compensation, pension, and education. This data base contains all information related to veterans' claims and subsequent payment. Currently the central payment system has an on-line interface to the regional DP centers for inquiry purposes and for queuing transactions for batch update on a cyclical basis.

Beneficiary Identification and Records Locator System (BIRLS)

BIRLS is essentially a data base facility for locating records and service discharge information for all veterans, whether or not a claim has been submitted by a veteran. BIRLS has an interface with the regional DP centers for on-line inquiry and update of BIRLS records. Within the Target System, BIRLS is used primarily for establishing initial claims and verifying service information. BIRLS permits

searches by any of the following fields: VA claim number, social security number, insurance number, service number, and name; thus, it is very useful for identifying veterans when incomplete information is available. BIRLS also has an update interface with the CPS.

Regional Data Processing Centers

The regional DP centers serve as hosts to the regional office terminal systems and as communications centers to the CPS and BIRLS. The regional centers are basically work control systems; the applications resident at the regional centers have conversational interaction with the terminal system (discussed later). Each regional DP center also maintains a pending-issue data base for benefit award actions currently in process at regional offices. This award action process involves four stages: establishment, development, adjudication, and authorization. Once a claim is authorized, a transaction is transmitted to the CPS for later processing and subsequent payment. Inquiry is also provided to the pending-issue file to determine the status of a claim in process and the physical location of the claim within the regional office.

Terminal System

The terminal system comprises all the minicomputers, controllers, video display terminals (VDTs), and printers in the regional offices. The 58 sites in the system are divided into three regions — Eastern, Central, and Western — corresponding to the three regional DP centers. The work load is balanced among the regions; each region has 30 to 35 percent of the national total. Terminal system users communicate through a series of minicomputer software manipulations and concentrators to the regional DP centers.

Work Flow

The basic processing work flow of the system is relatively straightforward, utilizing network and distributed processing facilities. Users interface with the system through the VDTs and receive-only printer terminals. From the user's point of view, there is a single system containing a single data base. From the application's point of view, there is a single regional center connected to both the CPS and BIRLS. The screen layouts displayed on the terminals reside at the regional offices.

The portion of the data base containing information about a veteran is distributed among the CPS, BIRLS, and one of the regional centers. It is important to note that the data base information is not duplicated at these locations, nor is there a file transfer between the locations to facilitate processing at a single location. Both the data base and the processing associated with it are truly distributed.

Processing may be local to the regional DP center or it may be distributed between the regional center and either CPS or BIRLS, or both. If processing is required at either CPS or BIRLS, a message is sent to the

appropriate system requesting the desired processing. The transaction in the regional DP center waits for a response to this request before continuing. There is no restriction on the number of requests that may be sent to CPS or BIRLS.

When the processing associated with the terminal input message is complete, an output message is prepared and sent to the terminal. If a new screen format is required for the output message, form identification is included as part of the message. Like the input message, the output message to the regional office contains only the necessary variable characters. When the message is received at the regional office, it is examined to determine whether a new screen format is required. If so, the format is retrieved at the regional office and displayed with the variable data on the terminal.

These are the basic functional features of the system. As is described in more detail in later sections, the important feature with respect to distributed processing is the complex series of interactions among the terminal system (which maintains a set of discrete software functions), the regional DP centers (which maintain a conversational applications and systems logic together with a work-in-progress data base), and the CPS and BIRLS systems (which maintain centralized data bases with different data for different functions).

HARDWARE/SOFTWARE ARCHITECTURE

This section describes the hardware and software used in the CPS, BIRLS, the regional DP centers, and the terminal system. Major software extensions are also discussed.

Central Payment System (CPS)

Hardware. The central payment system is supported by a dual-processor Honeywell 66/60 with 1,024K words memory. This system interfaces with the regional DP centers for on-line inquiry to the central data base and for spooling of transactions for later updates. The average execution rate is 800,000 instructions per second. Interactive communication between the CPS and individual regional centers is accomplished by means of three Datanet 6632 communications processors. Communications lines are full-duplex 9,600 baud.

For both the on-line central data base and the batch update and dispersal processing, the peripheral equipment that supports the 66/60 includes 96 Model MSU0451 disk drives and 32 tape drives, some of which are Model MTU0610 (Honeywell's 6250/1600-bit-per-inch tape drives, for which the Veterans Administration was selected as an alpha test site). Standard multiplexor printers, card readers, and punches are also included.

System Software. The basic data management and teleprocessing system used for the CPS and the regional DP centers is Honeywell's DM-IV, including IDS II and TP. The operating system is GCOS, and

the telecommunications software is GRTS II. With the exception of GCOS, all of the major system software components have undergone extensive modifications to meet unique VA requirements and to improve system stability and performance. These software extensions are described in greater detail in a later section.

Applications Software. Applications software for the central payment system is best described in relation to its two unique functions: on-line inquiry (with spooling of transactions) and batch payment and dispersal processing. An applications interface has been developed to allow access to the central data base for inquiry through transaction processing routines and for capturing transactions from the regional centers for later batch update. The batch processing system was converted from an IBM 370/168 environment for COBOL 74 processing on the Honeywell equipment. The system processes on a cyclical basis through a sequential pass of a master tape file, which disperses payment transactions to the Treasury Department and produces accounting and statistical data. During this process the central data base is updated through interface software.

Beneficiary Identification and Records Locator System (BIRLS)

Hardware. BIRLS is supported by a triplex IBM 360-370 environment and COMTEN communications processors with an average execution rate of 400,000 instructions per second. Because the IBM and Honeywell communications protocols are incompatible, it was necessary to develop a protocol conversion system — a microprocessor-based communications converter designed as an interface between Target and the BIRLS data base. BIRLS also interfaces with the General Services Administration (GSA) for other VA uses.

System Software. The BIRLS operating system is IBM ASP/OS. The communications software is INTERCOMM, and the data base management software is a VA-developed file access that is unique to BIRLS. Software for the protocol conversion system is contained on Z-80 microchips within the microprocessors. This software converts the ASCII transmission code, operating over 9,600 baud lines in full duplex, to EBCDIC code operating at 19,200 baud in half-duplex operation. The software also performs the reverse function, so that the two systems appear to be compatible.

Applications Software. BIRLS is designed to accommodate three types of responses, two of which are associated with GSA advanced record systems processing and involve fast response through Teletype or routine processing for delivery during non-prime hours. The most significant response for the purpose of this discussion is the on-line interface with the Target System. BIRLS also has a batch interface for update purposes with the CP&E systems, the VA insurance systems, and other related veterans' information files. The system has sophisticated retrieval capability and serves as an integral link not only to the

benefits delivery systems but also to many other VA recordkeeping facilities.

Regional Data Processing Centers

Hardware. The regional DP centers at Philadelphia, Hines, and Los Angeles are basically identical in hardware, system software, and applications software. Each site uses a Honeywell 66/80 with 1,024K words of memory. Each regional DP center interfaces with the CPS, BIRLS, and its regional offices through three Datanet 6632 communications processors. The average execution rate is 800,000 instructions per second. Communications lines are full-duplex 9,600 baud. For the claims processing functions unique to the regional processing environment, the 66/80 is supported by 18 Model MSU0451 disk drives, 8 Model MTU0500 tape drives, and the standard multiplexors, card readers, punches, and printers.

System Software. As in the CPS, the basic components of system software are DM-IV, GCOS, and GRTS II tailored to VA network requirements and the operational needs of the regional offices.

Applications Software. The regional DP center applications software and the regional office software and firmware are the elements that make the VA's benefits processing network truly distributed. The regional DP center is essentially the host system that drives the network. All functions associated with inquiry and claims processing are handled through the regional DP center applications software, which activates communications with the CPS and with BIRLS. Claims processing, however, is primarily a standalone regional DP center function from the time a claim is established until it is authorized. The pending-issue data base is the major feature of the regional DP center environment. Its data and functions are completely distributed (i.e., totally different from the CPS and BIRLS). The series of commands involved in the claims process activates transaction processing routines unique to the regional DP center environment.

Terminal System

Hardware. The terminal system constitutes the largest collection of discrete pieces of equipment. There are 58 terminal system locations (56 regional offices, the St. Louis Records Processing Center, and the VA Central Office) where varying amounts of equipment are installed. At a typical large regional office, one Honeywell Level 6 Model 36 minicomputer is linked to a regional DP center Datanet via full-duplex 9,600 baud lines; this minicomputer serves as a communications concentrator for multiple Level 6s within the regional office. The multiple Level 6s process such functions as screen mapping, down-line loading, and supervisory terminal operator logic. Each of the Level 6s operates with 64K memory and diskettes or disk drives for operational software. Each Level 6 (other than the one used as a concentrator) can service up to

eight Honeywell Model 7765 Terminal Controllers, which each control up to eight VDTs or printers. Through firmware housed on diskettes, the controller handles basic function keys and some screen mapping.

The video display terminals consist of Honeywell Model 7708-6 monitors and Model 7708-64 keyboards. A unique feature of the keyboard is a badge reader through which a magnetically coded access card must be passed before the terminal can be activated. The access card is a security device that identifies a specific employee, his or her level of access (the commands the employee is authorized to use), and the station at which the processing is taking place.

Systems Software. The Level 6 software used by the VA is Honeywell's Basic Executive software, extensively modified to meet unique VA requirements. The major features of the software are the facility for screen mapping, so that only variable data is transmitted to and from the regional DP center; down-line loading logic that permits on-line loading of software changes; and supervisory terminal operation logic, which controls specific terminal or printer designation, broadcasts messages, and monitors terminal status throughout the regional office. Other extensions to this software are discussed in the next section.

Applications Software. The segments of applications software that are distributed to the regional office terminal systems consist primarily of the specific screen formats associated with the various types of inquiry or award processing.

Major Software Extensions

Networking. One of the major software extensions developed for the VA was a networking capability. Since the Target System was designed with numerous computer-to-computer interfaces, it was necessary to develop communications among the regional DP centers, BIRLS, the central payment system, and the regional offices. The distributed processing and data base philosophy of the system is based on the concept of a dominant host computer system that communicates with subordinate and remote host computer systems. Modifications to DM-IV and GRTS II have been developed, and networking is now in production on a nationwide basis.

Pipelining. The pipelining feature, which allows message traffic to be balanced over more than one physical data communications line, was integrated into the GRTS II software. The feature enables messages, or even parts of messages, to be directed across different physical lines and then reconstructed in proper sequence at the receiving end. This feature has been installed nationwide in the regional DP centers, the central payment system, and BIRLS.

Level 6 Queuing. The regional offices need printed records pertaining to awards and authorization. A mechanism was developed for obtaining

the printed record without suspending transaction processor activity at the host printer if printers are unavailable at the terminal site. Queuing allows for timely printing on an as-available basis by holding delivered messages until a device becomes available. This feature is currently installed at all terminal system sites.

Training Mode. A nationwide terminal network requires a sophisticated training mechanism. When this network is implemented nationwide, a total of 10,000 to 12,000 regional office personnel will require training. The training mode feature allows the supervisory terminal operator at each regional office to designate whether a terminal will operate in production mode or in training mode. This feature accesses a separate area of the data base — all training transactions are designated by an indicator that triggers DM-IV to access only the specified area of the data base allocated to training mode. Production records in the data base cannot be accessed; otherwise, the terminal commands, screens, and processing in the training mode are identical to the production versions. Thus, the feature provides training in a mode identical to production processing without endangering production data.

Variable Field Protect. Because of the variety of screens available for inquiry and update purposes, the VA required a feature to prohibit entry or change of data in a screen field that is not authorized for update with a particular command. The applications software ignores extraneous data for a particular command; however, a feature was required to prevent the terminal operator from entering data in a protected field and assuming that this data would be processed. The variable field-protect feature is an enhancement to the 7765 Controller and can designate protected and unprotected fields as required by each command. This feature is currently installed.

Down-line Loading. The large number of remote sites necessitated a feature for transmitting Level 6 software (such as new or modified VDT screens) from the host computer. This feature, down-line loading, also allows loading of software from a dominant to a subordinate host. This software could include both applications and systems software releases. Since the major development activity for the Target System will take place in Chicago, this feature will be invaluable for maintaining software integrity among the regional DP centers. The facility also ensures the integrity of the Level 6 software at all regional offices. The down-line loading facility is currently in final testing.

Data Element Dictionary. This product will be used by data base administration to manage development of and ensure control of DM-IV application data bases. In the future, the data element dictionary will be an important tool for standardizing and enhancing data base organization and structure.

Terminal Simulator. This feature of DM-IV TP software allows the simulation of terminal activity in a number of ways. The simulator has

potential uses in application software testing and in audit activities. This software is currently being tested.

DATA BASE CHARACTERISTICS

The major host subsystems (CPS, BIRLS, and the regional DP centers) maintain separate but interactive data bases that are accessed as a single data base by the terminal system user. All communications are accomplished through the regional DP center. The three major data bases support all production activities related to inquiry and claims processing and together provide all relevant information required to process benefits delivery for the CP&E systems.

Central Payment System Data Base

The central payment system data base is composed of 13.8 million veteran records related to compensation, pension, and education claims history and processing. The data base contains approximately 7.2 billion characters at 60 percent density — a total of 12 billion characters on 65 Honeywell MSU451 disk packs.

Organization. The data is organized in a list or integrated structure with member/owner records and forward and backward chains. The basic organization is a tree structure with a two-level hierarchy and a minimal use of indices.

Access/Update. Access to the central data base for inquiry purposes is command generated and processed through the regional DP center. Update transactions are transmitted from the regional DP center; they are then spooled for updating the tape master file and the central data base through cyclical batch processing. This is an interim procedure that will be used until the CPS is redesigned for updating techniques that will eliminate the requirement for the tape master file.

Regional DP Center Data Base

The data base located at each regional center is called the pending-issue file and is basically a work-in-process file for the regional offices in a specific region. Each of the data bases in full production contains approximately 150,000 records and 1,050,000 associated segments. Each has 172 million characters at a density of 50 percent, for a total of 344 million characters.

Organization. Like the central data base, the pending-issue file is organized in a list or integrated structure with member/owner records and forward and backward chains. The basic organization is also a tree structure with a two-level hierarchy. The data is segmented into distinct groups or files to provide for greater recovery speed and to optimize availability.

Access/Update. Access to owner records is random, and access to member records is through linked list chains. The owner and member records contain all data associated with the generation of a claim. Once the transaction is processed through the central payment system, the regional DP center is notified and the action is purged from the pending-issue file data base.

BIRLS Data Base

The BIRLS data base is the largest automated repository of veteran identification information available to the VA. This data base provides central control for the assignment of claims file numbers and the location of the specific claims folder. It contains locator information on all veterans who have filed claims for compensation, pension, loan guaranty, or insurance, as well as records for every veteran discharged from the Armed Forces since 1972. The data base is primarily composed of two types of records, alphabetic and numeric; these records are linked by cross-reference from the numeric to the alphabetic record. The current volume of records is greater than 35 million.

Organization. The BIRLS data base is organized like an indexed sequential file with keys on numeric and alphabetic identifiers. The standard IBM software could not accommodate the volume of the data base; thus, the data base management system is a VA-developed software package, tailored to the specific needs of the system.

Access/Update. BIRLS is accessed through terminal system commands. Searches can be conducted by name, social security number, VA claim number, VA insurance number, or Armed Forces service number. The data base is updated on-line through the terminal system or through the GSA Message Switching Center. Batch updates are accomplished through spooled transactions from the switching center and tape interface with the CP&E, Insurance, and Loan Guaranty Systems.

OTHER FUNCTIONS AND CONSIDERATIONS

This section discusses two additional functions of the Target System: computer-assisted instruction and inventory management. Privacy and security considerations are also discussed.

Computer-Assisted Instruction

With more than 2,000 terminal system users, the system needs a uniform and easily adaptable training mechanism. Although the training mode facility discussed previously was made available, it required the preparation of programmed texts to be used with screens that were identical to those in production. The VA developed a computer-assisted instruction subsystem for programmed evaluation and review (SPEAR) as an adjunct and eventual replacement to the training mode. The training provided by SPEAR supplements the training mode by allowing for

simultaneous instruction in the data input process as well as in the principles of award adjudication.

Data Base and Operations. The SPEAR data base is a subset of the regional DP center data base that is accessed by a training command. This command allows the terminal operator to begin a training session for one of the terminal functions. The data base is segmented by lesson in a simple hierarchical structure. By use of another command, the training staff can create new lessons or delete outdated ones.

Benefits. VA experience has shown that this type of training session is an effective way to present both initial and review training. Since this training is performed in the actual operational setting, the trainee gains familiarity with the process, the equipment, and the specific data entry tasks required without using printed text. The initial phase of this computer-assisted instruction has been implemented. The VA continues to investigate more sophisticated and effective enhancements to the system.

Target Inventory Management System

Because of the volume of equipment associated with the system (more than 25,000 items of equipment or features at 60 different locations), an inventory control system was needed that could maintain records of installed equipment and incidents of hardware malfunctions. This need was met by the development of the target inventory management system.

Data Base and Operations. The data base for this inventory management system has a hierarchical structure based on equipment profiles and connections of equipment. It is updated through the time-sharing system editor capabilities. The data base is composed of a number of sets that enable entry by location or by specific equipment data.

Privacy/Security Considerations

System Access Security. Because of the nature of the data within the system pertaining to the veteran population, the network had to comply with the Privacy Act of 1974 to maintain the confidentiality and integrity of the data and to prevent possible misuse. One of the chief security safeguards is a controlled internal system access procedure that restricts access to the terminal system to those individuals authorized to perform certain functions.

The access procedure is governed by magnetically coded badges that must be used to activate the VDT and gain access to data. The data is further protected by a password system requiring terminal user identification by name and 4-character password. The security software matches badge, name, and password to ensure that the individual is authorized to access specific data and processes. Individuals are given

access only to those commands required for the performance of particular duties. For example, the command that authorizes the validity of a claims transaction can only be activated by a small number of individuals in each regional office. Badges and passwords are also changed periodically as directed by the appropriate security authority.

Risk Analysis Program. An ongoing program has been established to evaluate the physical security of all host computer and terminal system sites. The program also evaluates risks of unwarranted access to the system software and data and recommends procedures to prevent such access.

MANAGING THE DISTRIBUTED PROCESSING NETWORK

Centralization of Design Program Development. The nature of the VA's benefits delivery network made the adoption of a philosophy of centralized design and development essential. Because procedures related to benefits delivery are tied to congressional legislation and VA regulations, the system's functions must be developed for nationwide use without deviation at any distributed site. Each regional DP center's applications and system software must function identically, as must the terminal system software at all remote locations.

Centralization of Management Control. The philosophy of centralized development, in turn, requires centralization of the management control function to ensure that the system retains its integrity at all locations. This management control was established by assigning a central project manager the responsibility for all aspects of system development and hardware acquisition and installation. This manager also oversees the continuing operation of the network. Centralization has clearly aided in the implementation of the system and has provided a focus for communication with users and DP personnel.

Decentralization of Operations. Operations are essentially decentralized; day-to-day regional office operations related to claims processing are within the purview of the director of the regional office and the directors of the regional DP center. Operational problems are dealt with on a decentralized basis and reported to the centralized management control functions.

Team Concept for Development and Operation. For a number of years the VA has been developing an organization that brings users of the system and DP personnel together on a day-to-day basis. The VA believes this interaction is a key to success in major systems development as well as in system maintenance. While the standard system life cycle has been adopted, with both users and DP having specific responsibilities for each phase, the organization is evolving toward a philosophy of shared responsibility, with each group providing assistance to the other as requested. In spite of such disadvantages as increased meeting time and resolution of problems on a daily basis, this team concept facilitates up-front communications about user requirements.

CASE STUDIES

Project Review/System Release. As an adjunct to the previously mentioned areas of centralized management and control, the VA has instituted a structured procedure for system release, together with project review at each stage of system development. These controls ensure that proposed changes will not adversely affect established priorities, that priorities can be reconsidered after complete and thorough review of all resource requirements, and that changes to the system can be implemented in an orderly and regularly scheduled manner.

FUTURE PLANS

This section briefly describes some of the enhancements and modifications that are in the study or planning stages.

Central Payment System Redesign. The central payment system is currently being redesigned to update outmoded processing characteristics and incorporate still larger segments of VA claims benefits processing, such as the centralized accounts receivable system for collection of overpayments. Interfaces with the loan guaranty system for VA housing loans and VA hospital admissions functions are also under study.

BIRLS Redesign. BIRLS is undergoing a redesign to accommodate additional user requirements, to implement a standardized data base management system, and to provide for other state-of-the-art improvements. This redesign effort will attempt to standardize interfaces with the central payment system, the regional DP centers, and the VA insurance and loan guaranty systems. Additional data will also be made available for the use of the VA hospitals and department of memorial affairs.

Health Care Information System. While not specifically related to the benefits delivery aspects of the VA's mission, a nationwide health care information system is planned. The object of these plans is to standardize and consolidate DP functions at the VA hospitals and to provide better access to information related to patient care and hospital administration. Although the system is only in the planning stages, the type of network envisioned will be similar to the system described in this portfolio.

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